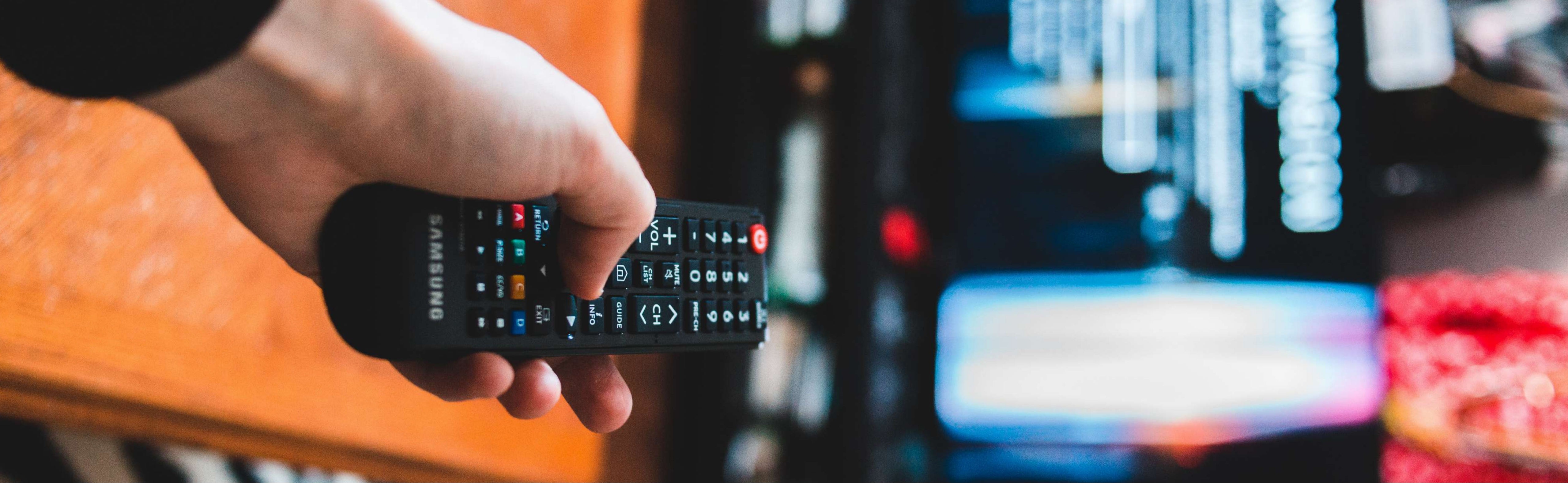# Leveraging data to uncover the perceived quality & diffusion of a Pay-TV service.

Summary

ANALYSIS AND OBJECTIVES

The Data Appeal Company has analyzed, for an international Pay-TV brand, the diffusion and perception of the service quality when provided to a variety of businesses (hotels, restaurants and bars) by analyzing the user feedback data that has been published online.

METHODOLOGY

A data-driven approach established on a neural network, sentiment analysis, and semantic algorithms based on machine learning and natural language processing.

Advantages Obtained

Understand the true customer perception about your services to accurately identify advantages and critical issues.

Optimize customer experience throughout the purchase and user process.

Drive customer loyalty with an offer and service that exceed expectations.

Identify a competitive advantage to differentiate your business and overcome competitors.
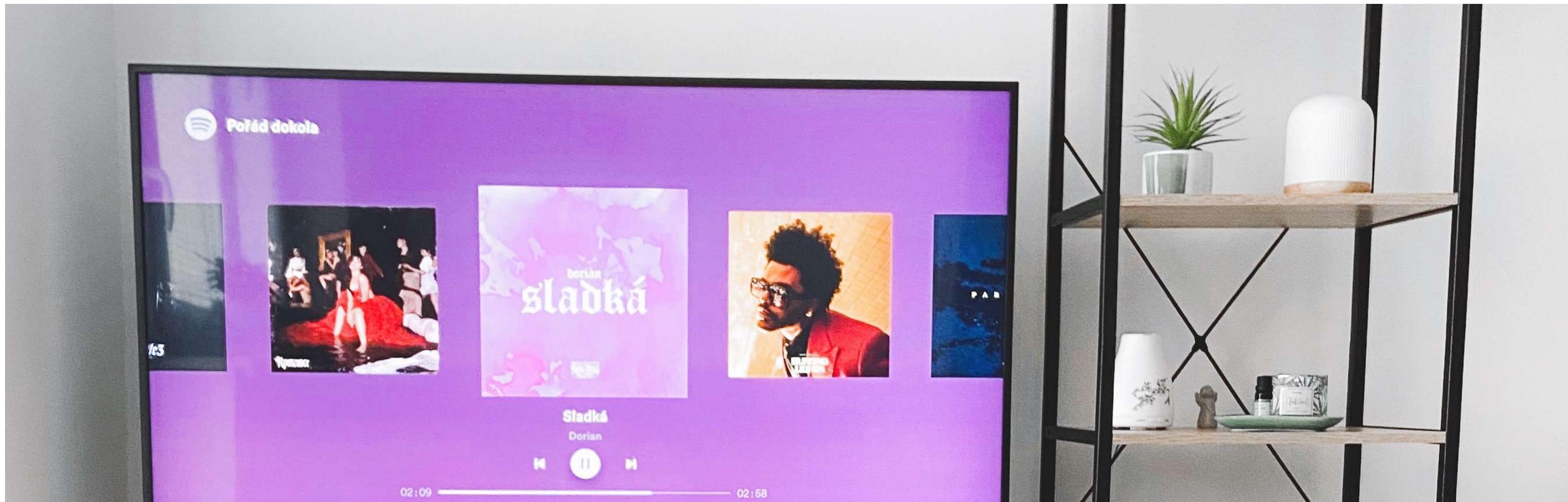
Identify the most strategic areas of investment to enhance sales and business development.

Identify new groups of prospects to contact.

Data Analysis and Perceived Quality: A key asset for every industry

Knowing the perceived quality of a product or service in the eyes of customers is a key asset for any business across all industries.

The benefits of deeply understanding how your businesses is perceived impact each aspect of the product and service. **At the customer level**, knowing your strengths and weaknesses in the eyes of your customers is fundamental to improve their experience and the overall purchase process, as well as to increase their satisfaction at each touchpoint to consequently boost the brand value.

At a strategic level; however, the perceived quality allows you invest and plan the evolution of the product or service to be aligned with the ever-growing expectations of the public. It also enables you to understand how to differentiate yourself and overcome the competition.

For premium entertainment companies that offer Pay-TV - *both to customers directly* (B2C) *and to other businesses* (B2B) - it's fundamental and necessary to deeply understand the diffusion and perceived quality of the service provided - not only in the eyes of individuals, but by public businesses throughout a territory (hotels, bars, restaurants).

This allows a business to offer a consistent service that not only meets, but exceeds the expectations of the end customer, even when targeting the B2B market. This method of data analysis is a valid tool to aid businesses in making strategic investments and create targeted communication to address users more effectively.

Product perception when offered in public establishments

To understand how a Pay-TV service is perceived inside a bar or restaurant, the analysis is more complex than a questionnaire or a general analysis of online reviews. It's necessary to develop a two-phase strategy.

Below are the steps taken in this case study:

#1

Collect and analyze online content relating to public businesses where the specific Pay-TV service is offered.

#2

Employ a semantic analysis algorithm on the analyzed content to extrapolate opinions directly related to the service.

Data scientists, machine learning and natural-language processing experts who are able to filter and train algorithms in the most effective way are fundamental to achieve your goals.

The analysis carried out by The Data Appeal Company for an international Pay-TV agency, highlights this data-driven approach in detail. It outlines the process and methodologies required to obtain an accurate analysis in a short time period.

To understand the **diffusion of free Pay-TV** throughout a **specific territory** and **uncover the perceived quality** of bars, restaurants and hotels in relation to their offer of Pay-TV.

THE STAGES OF THE PROCESS

Identify the geographical area and **time period** to be analyzed

Select the categories to be analyzed: in this case restaurants, bars, hotels and non-hotel accommodation properties

Map the selected **points of interest**

Data collection: reviews and social posts of the selected points of interest
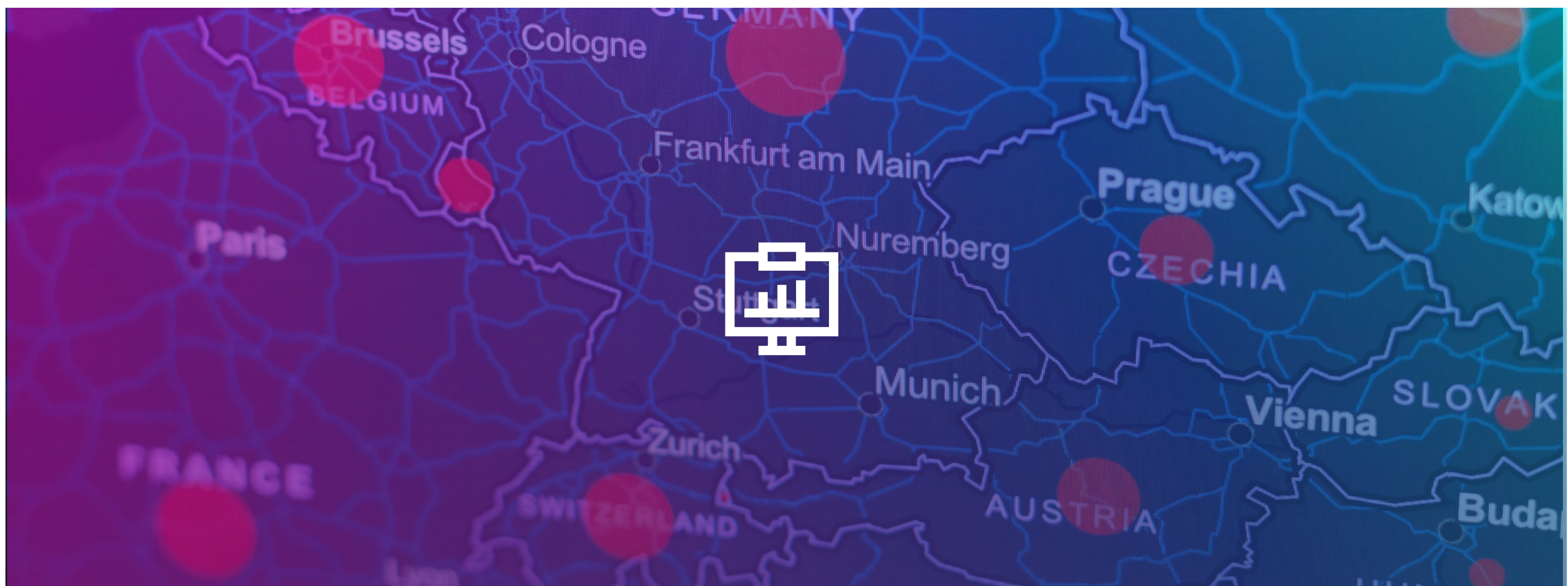
Data analysis

Evaluate and display results

THE **DATA APPEAL** COMPANY

The methodology used to map and analyze data

The neural network Word2vec

To develop the analysis of the collected data, we followed a **data-driven approach**, using a neural network (Word2vec) that explores a selection of texts organized to facilitate analysis. It returns a set of vectors that represent the semantic distribution of the words in the text. Each word therefore constitutes a vector, represented as a point in a space.

The closer the points or words are, the more they are used in related contexts and the more they express semantic similarity. This is the case, for example, of "hotel" and "accomodation property".

This similarity of words allows us to enrich the analysis on a specific topic with all the terms and/or sentences that cannot be predefined, but are directly suggested by the texts, or better, by the contexts.

In this case, when analyzing a specific television platform, **the words suggested by the algorithm are mostly related to competitors, their brand and their most popular channels.** The subject relating to which sports and matches were broadcasted was very relevant in the study. Other keywords and terms including projectors, giant screens or smart TVs also contributed significantly to the general viewing experience.

Sentiment Analysis

Once the keywords and terms were identified, the most coherent and contextual phrases were isolated in order to analyze the related sentiment. More specifically, we examined the sentiment of the predefined terms in relation to the Pay TV brand of analysis.

At the base of the semantic algorithm is a **neutral network model based on machine learning**. It's directly linked to the NLP (Natural Language Processing) field and identifies the non-linear dependencies between the various words to "understand", at a computational level, the logics that they represent the satisfaction, and more generally, the polarity (positive, negative or neutral) of a generic text.

Clustering themes and analyzing the relationship between themes and opinions

To facilitate the data interpretation, the terms that emerged from the analysis are clustered into homogeneous groups that represent the main topic - to which those terms are referred to either positively or negatively.

Lastly, we analyze the **relationship that may exist between the themes and opinions expressed by users** to understand which factors can improve or worsen the perception of an element or a situation (such as the video quality of a football game or television program, or how perception changes when the viewer analyzes Pay TV channels while out a restaurant with friends).
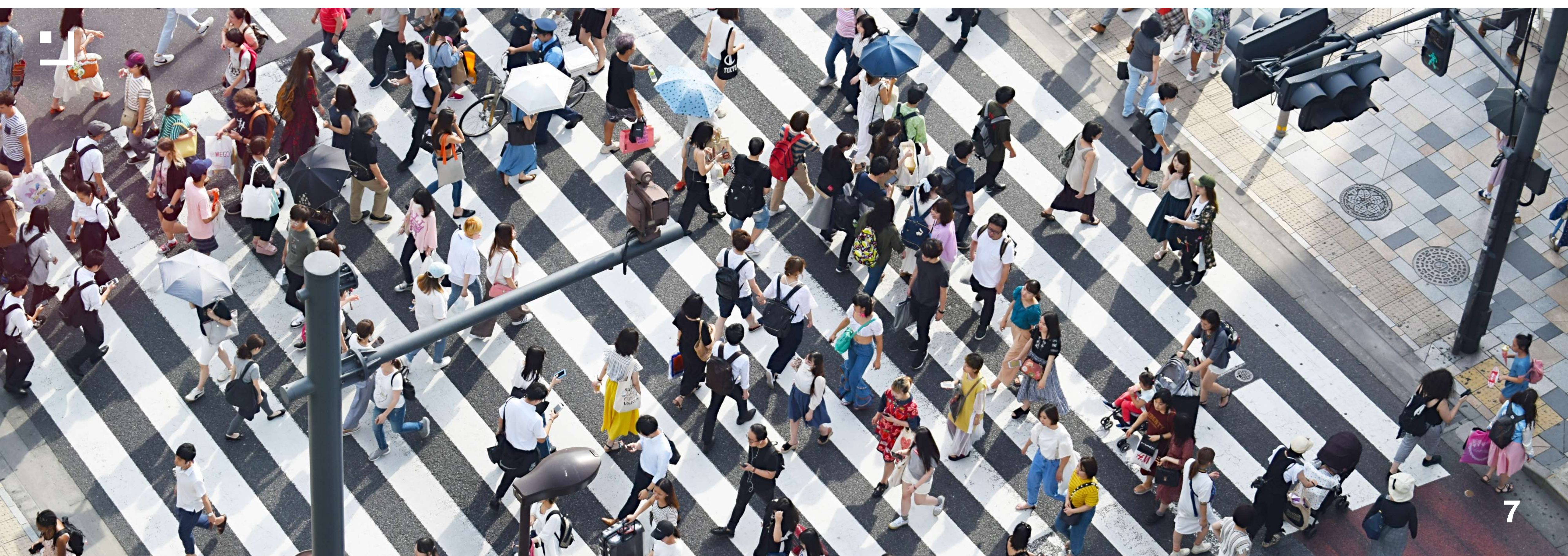
The distribution of all service-related content and feedback among public establishments

Throughout the territorial area examined during the indicated time period, there are **over one million pieces of online content published by customers** who frequent bars, restaurants and accommodation properties.

"

Among all of the online content related to the television service under observation, there is, on average, 9% of content coming from hotels and accommodation properties.

The rest of the online content derives from restaurants, bars and other venues.

Sporting events dominate the scene

Sporting events, in particular football matches, attract the general public of Pay TV to bars and restaurants offering the broadcast service.

The majority of the feedback collected is often classified as neutral as it does not express judgments closely related to the television service, but rather refers to the overall experience within the venue, such as quality of the restaurant or staff.

Topics Emerging from the Review Analysis
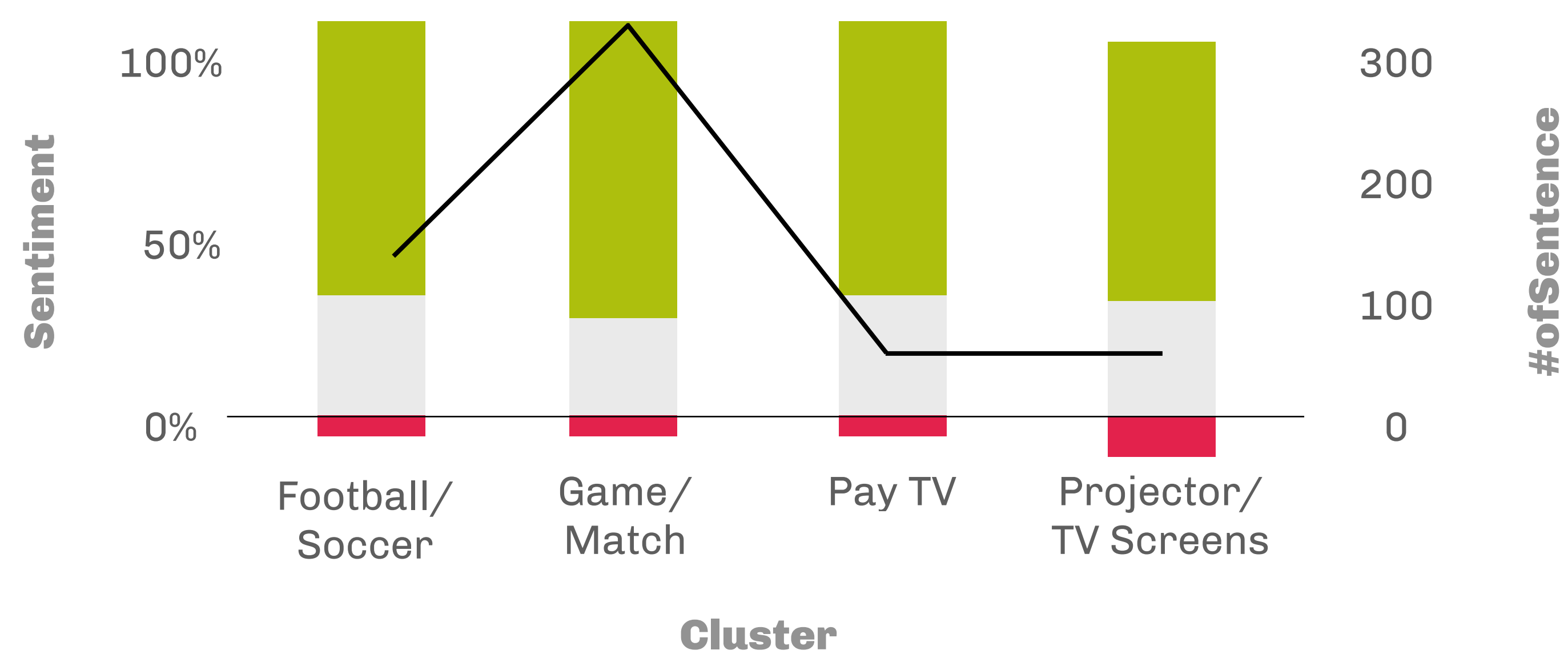
🟩 **Football**	"Cozy, and also broadcasts football matches"
🟩 **Football**	"Some tables for 2 are a bit narrow, but you don't have to play football, you can easily stay there to eat"
🟥 **Football**	"Fun environment; games: football all over the world!"
🟩 **Football**	"As long as we don't talk about football"
🟩 **Football**	"Good live music, good sports on screens spread all over the place, not only the usual football, but also rugby, American football, golf, cricket, and so on"
🟩 **Football**	"Table football and big screen for games"

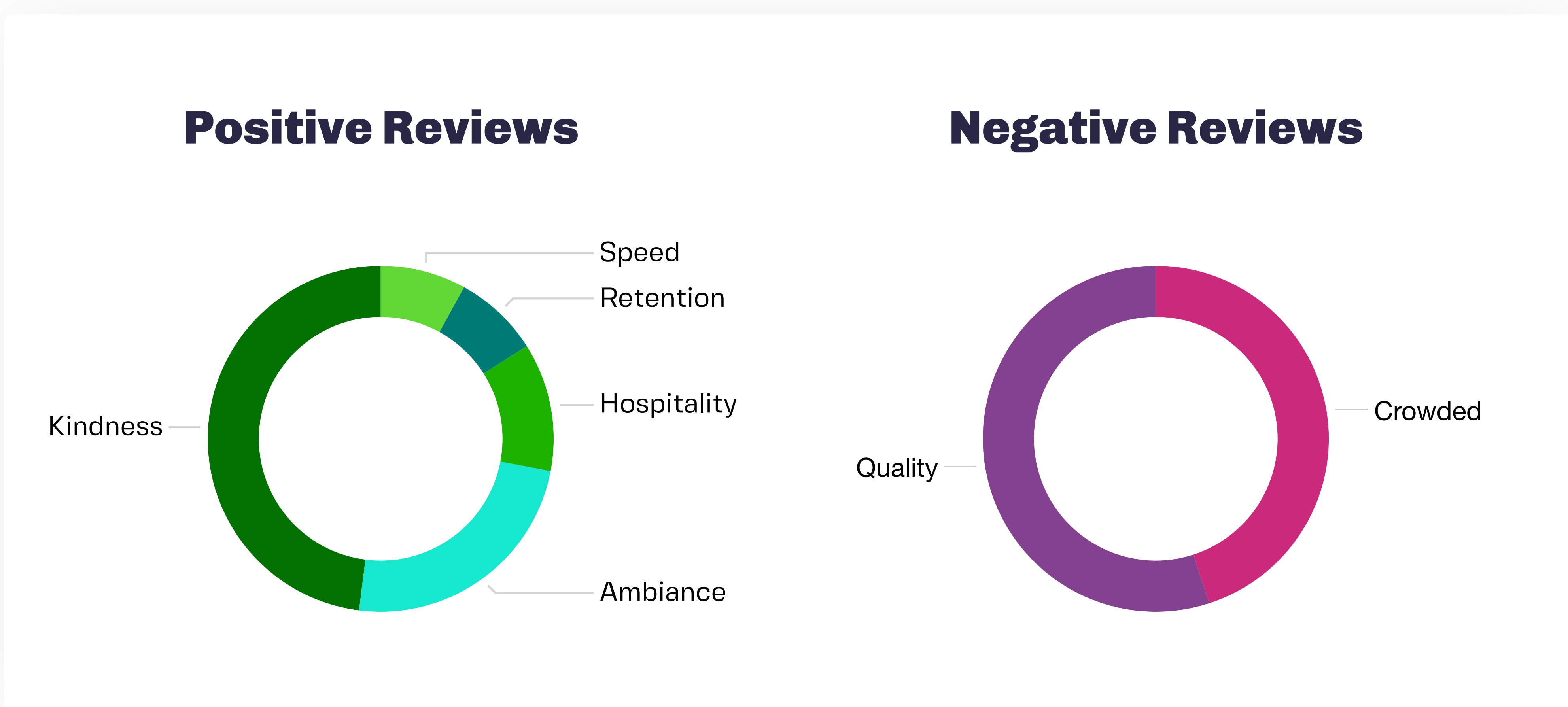# The offer of Pay TV service influences consumer behavior

Undoubtedly, the presence of a television platform on the premises of a bar, restaurant or hotel influences consumer choices, as well as the general perception the customer experience.

In fact, two main groups of customers emerge from the data analysis:

- **Those willing to follow a sporting event broadcast** and demonstrate a positive attitude towards all elements of the experience

- **Those who become annoyed due to the high volume of noise in crowded rooms** where the broadcast of a sporting event is taking place. This reaction triggers negative comments, which also impact other elements of the experience.

In general, however, the analyzed bars and restaurants that offer the Pay TV service, obtain rather **positive** (when the Pay TV service improves the overall experience) **or neutral feedback** (when mentioned in online feedback, but does not modify or impact the overall experience).

Excessive noise and crowds are the main factors relating to the Pay TV service that lead to a negative experience. However, it also depends on the layout and organization of the premises.

Positive Reviews

Speed
Retention
Hospitality
Kindness
Ambiance

Negative Reviews

Quality
Crowded

Service is recognized as an added value

In hotels, reviewers emphasize the presence of the Pay TV service when it's included in their accommodation offer. Their reviews and feedback related to the service allude to a sense of amazement and appreciation. Opinions such as "fantastic", "surprised" and "comfortable" are recurrent when relating to the presence of the TV platform in the room, especially when the service is supported by a Smart TV.
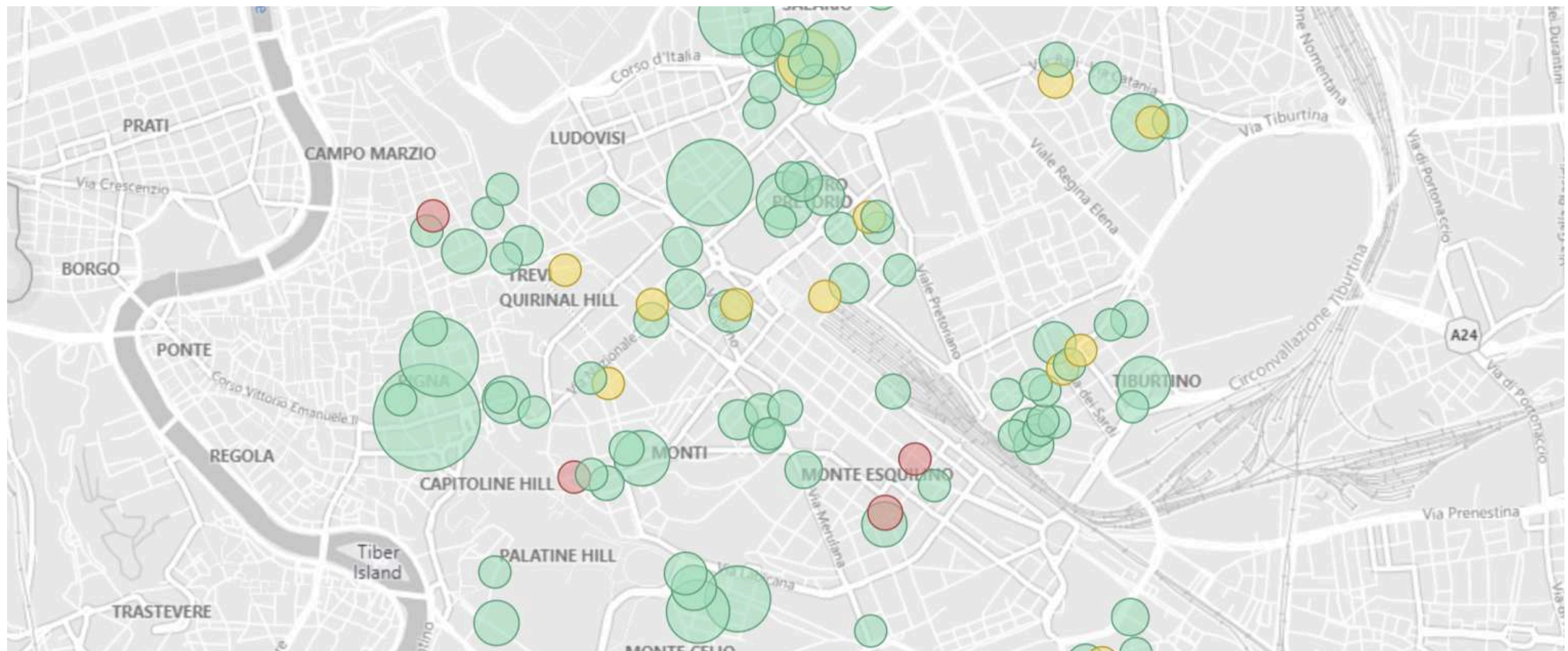
Pay TV as lever for customer loyalty

The broadcast of sporting events can be related to customer loyalty – patrons a specific location tend to return. Entertainment programs also trigger positive customer sentiment – customers perceive venues to be more welcoming when they include Pay TV services. The correlation between these two elements is very strong.

Cause & Effect Relationships
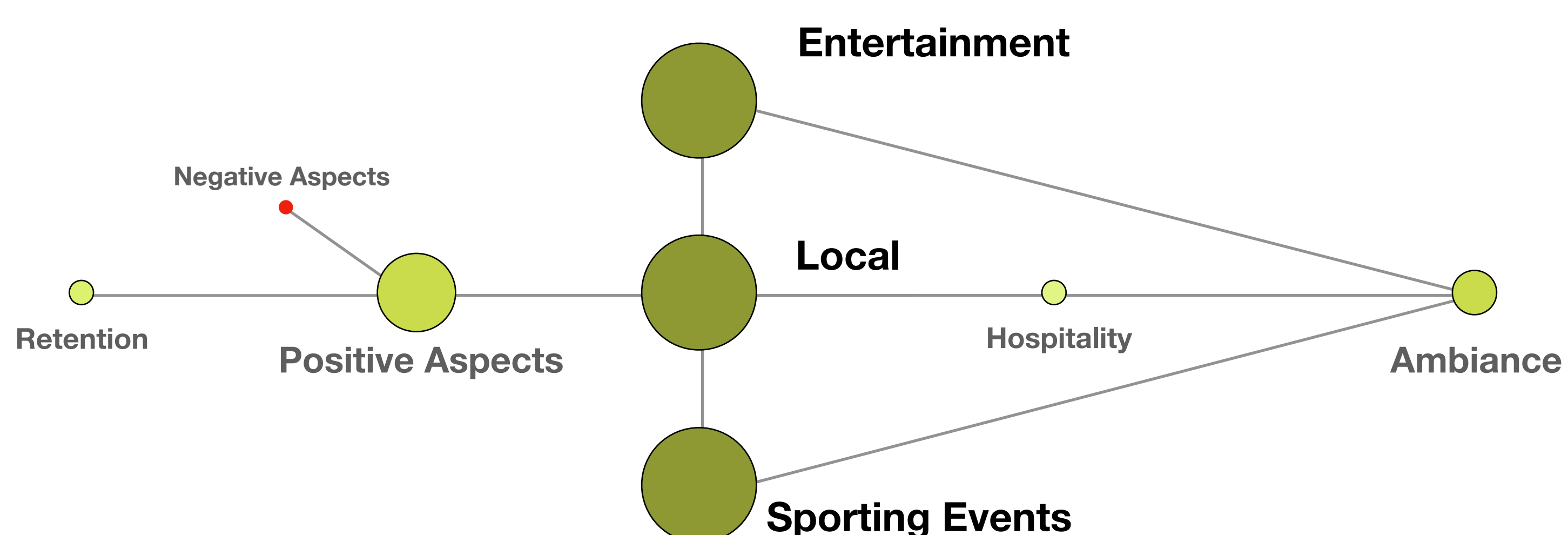
Discovering new business opportunities

The location intelligence model developed by The Data Appeal Company for the Pay TV service under investigation has allowed them to not only to achieve their goal, but also carry out a series of actions aimed at expanding their business.

The client has benefited from real-time identification of the venues, where their service is provided, with the highest business potential. This has allowed for greater opportunities for the client to upsell their services and enter into new contracts.

The properties and venuines identified by Data Appeal's artificial intelligence have multiple distinctive characteristics, including online popularity or the distance from other locations where the select service is present.

Name	Category	Address	Website	E-mail	Phone Number	Score
Bar Roma	Bar	via di Roma, 77	barroma.it	info@barroma.it	6349311	78/100
Ristorante Piatto Ricco	Ristorante	via Calabrese, 635	piattoricco.it	info@piattoricco.it	6543729	89/100
Hotel Europa	Hotel 4*	viale Europa, 55	hoteleuropa.it	info@hoteleuropa.it	6398112	92/100
I 3 luppoli	Pub	via Alighieri, 122	treluppoli.it	info@treluppoli.it	6457782	95/100
A casa mia	Ristorante	via Leopardi, 388	casamia.com	info@casamia.com	6437899	87/100
…	…	…	…	…	…	…

(The data in the table is completely fictitious and has been entered for the purpose of example only)

Data Appeal for the Media & Entertainment Industry

Having comprehensive, up-to-date and accurate data, combined with customer and competitor behaviors for any global market is essential for any business operating within the media, broadcasting and entertainment sector.

Data Appeal offers the largest source of data and location intelligence. Leverage our data lake to obtain information, analysis and insights about points of interest, markets, behaviors and feedback.

Forecast market evolution and uncover your competitive advantage to stay ahead of competitors.

Market Penetration & Forecasting

Deeply Understand Customers

Uncover New Prospects

Discover more

THE **DATA**
APPEAL
COMPANY