

Understanding customer experience in Orlando theme parks through  
online reviews from TripAdvisor

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## **Abstract**

In the last decade, the development of social media and digital technology, have empowered customers to strongly engage with firms, to freely behave choice wise and to influence other customers either positively or negatively. In fact, it not only has impact in possible customers but also in managers, who can take advantage from content generated on internet to improve customer experience. This study aims to extract latent information on visitor perception and experience through sentiment analysis from user generated content. Several findings were unveiled. In general, satisfaction and sentiment differ between the eight theme parks, wherein the three theme parks with higher positive sentiment were Disney's Animal Kingdom, followed by Universal's Islands of Adventures, after Discovery Cove and finally SeaWorld. Furthermore, it was found on one hand that drivers of customer's satisfaction are associated with sentiments such as "fun", "great", "lovely" and "amazing", and on the other hand experience and services such as "rides", "water", "dolphins", "experience" and "show". Those results are valuable to support theme park management to improve the guest experiences and consequently achieve sustainable competitive advantage.

Keywords: Sentiment Analysis, Theme park, Customer Experience

## **Resumo**

Na última década, o desenvolvimento tecnológico e das redes sociais possibilitou aos consumidores a oportunidade de se relacionarem mais com as empresas, de escolherem de uma forma mais personalizada e influenciar outros consumidores tanto positivamente como negativamente. Esta conjuntura, não só têm impacto em possíveis clientes como também os gestores podem tirar partido do conteúdo gerado na internet, com vista a melhorar a experiência do cliente. Este estudo tem como objetivo analisar a percepção e a experiência do consumidor através da análise de sentimentos do conteúdo gerado pelos próprios consumidores. Várias descobertas foram reveladas. De uma forma geral, que a satisfação e sentimento dos consumidores diferem entre os oito parques temáticos, sendo que os três parques temáticos que demonstram um sentimento mais positivo foram Disney's Animal Kingdom, seguido por Universal's Islands of Adventures, depois Discovery Cove e finalmente SeaWorld. Em mais detalhe, foi descoberto por um lado que os fatores que levam à satisfação do cliente estão associados a sentimentos como "divertido", "ótimo", "adorável" e "incrível", e ainda, por outro lado, que experiências e serviços como "passeios", "água", "golfinhos", "experiência" e "espetáculo". Resultados como estes são importantes para o suporte da gestão de parques temáticos na melhoria da experiência do consumidor, ganhando assim, uma maior vantagem competitiva duradoura.

Palavras-Chave: Análise de Sentimento, Parques Temáticos, Experiência do Consumidor

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## Table of Contents

Abstract .....	I
Resumo.....	II
Acknowledgments .....	III
Table of Contents .....	IV
Table of Contents – Figures .....	V
Table of Contents – Tables.....	V
1. Introduction .....	1
2. Literature Review .....	2
2.1 Customer Engagement and Digital Interactivity .....	2
2.2 Customer Experience.....	4
2.3 Customer satisfaction in Theme Park context .....	5
3. Methodology.....	8
3.1 Research Context .....	8
3.2 Data Collection .....	9
3.3 Proposed Approach.....	11
3.4 Sentiment Analysis .....	12
4. Results .....	15
4.1 Sample characteristics .....	15
4.2 Sentiment Classification Polarity .....	19
4.3 Sentiment Classification by Rating .....	22
4.4 Attributes Analysis .....	26
5 Conclusion .....	30
5.1 Contributions .....	30
5.2 Limitations.....	31
5.3 Future Research .....	32
6 References .....	33

## Table of Contents – Figures

Figure 1: Number of social media users worldwide from 2010 to 2021 (in billions).....	3
Figure 2: A social media competitive analytics framework with sentiment analysis .....	11
Figure 3: Sentiment analysis workflow.....	13
Figure 4: World cloud for positive Theme park experience domain .....	27
Figure 5: World cloud for negative Theme park experience domain .....	29
Graphic 1: Sentiment Polarity by Theme park.....	21
Graphic 2: Average Polarity Confidence .....	22
Graphic 3: Score rating by Theme park .....	25

## Table of Contents – Tables

Table 1: Theme Parks with more reviews on TripAdvisor 2017 .....	9
Table 2: Review and user features extracted from TripAdvisor .....	11
Table 3: Subjectivity on reviews by Theme Park .....	15
Table 4: Profile of the respondents by gender.....	16
Table 5: Average N° of contributions by theme park.....	16
Table 6: Distribution of reviews per continent.....	17
Table 7: Traveller Type.....	18
Table 8: Seasonality on Theme Park experience .....	19
Table 9: Standard Deviation Polarity confidence .....	22
Table 10: Positive attributes discovered and respective frequency.....	26
Table 11: Negative attributes discovered and respective frequency .....	28

## **Executive Summary**

The Internet and the use of social media have changed the way customer behave, giving them the opportunity to express, share, and influence others customers. From this information, marketers can understand the context in which customers seek to engage with their brand and define customers' profiles. This study aims to identify the sentiment polarity through sentiment analysis technique, from 800 customers' reviews, as well as analysing the main drivers of customer satisfaction. Previous literature had limited support through online reviews on theme parks as influential factors on visitors' choice, theme park industry should consider paying attention to online reviewers as the user-generated content on social media has increased greatly over the last years and it can be valuable for firms. This study stresses that core sentiments expressed through online reviews are mainly positive in what concerns to theme park experience and also that the three theme parks with higher positive sentiment were Disney's Animal Kingdom, followed by Universal's Islands of Adventures., after Discovery Cove and finally, SeaWorld. Results also showed that drivers of customer satisfaction are associated with sentiments such as "fun", "great", "lovely" and "amazing", and experience and services such as "rides", "water", "dolphins", "experience" and "show". On the contrary, attributes like "price", "crowded", "time" and "waiting" are clearly the main attributes mentioned by customers as the main reasons for customer dissatisfaction. As such, the contribution of this study provides a solid background support beyond a simple traditional guests' survey, thus strengthening managerial decisions to further improve guest experiences.

## 1. Introduction

The Internet and the use of social media have fundamentally changed the customer decision process and the way customers behave, influencing several aspects such as awareness, information acquisition, opinions, attitudes, purchase and post-purchase behaviour and evaluation of the product. Nowadays, customers have taken a role of sharing opinions, experiences, interests and information throughout online social networks, having the opportunity to express, share, influence as well as compare experiences with other customers. The appearance of social media services such as Facebook, Twitter, Instagram and many others, have changed the way in which information and news are known. (Ye, Law, Gu, & Chen, 2011). This phenomena called “Digital Era” is reflected in the ways that firms and customers deal with new technologies and at the same time, how technology has facilitated market interactions and experiences. Customer reviews are a good source of market response; data and sentiment analysis on these reviews can provide significant insight on how customers feel about a certain product. From these customer insights, marketers can understand the context in which customers seek to engage with the brand and construct customers’ profiles, which can in turn be used to enhance digital marketing campaigns and advertisements. As Kotler (2015) defends, marketing is about dealing with the ever-changing market. Theme parks are an important segment of the tourism industry. To highlight, Disney parks are truly pioneers of the emerging experience economy by using technology to enhance their customers’ experiences (Pine & Gilmore, 1998).

The research focuses on eight theme parks in Orlando, Florida since is one of the world's most visited tourist destinations, due to its famous attractions (TEA/AECOM, 2017). The Amusement Parks industry in U.S. has experienced a strong growth over the years and as a result, it is crucial to obtain continuous competitive advantage over other similar businesses in order to retain customers and attract new ones. In the 1990s, 225 large-scale theme parks operated worldwide, generated US\$7 billion from 300 million visitors, while in 2000, there were 50% more theme parks in operation which generated twice the revenue from 80% more visitors compared to 1990s (Pan, Bahja & Cobanoglu, 2018). From 2016 to 2017, the attendance at the world’s top theme park groups increased by 8.6% from 438 million to 476 million visitors (TEA/AECOM, 2017).

There is a large amount of user-generated content available on social media and in order to transform it into useful business information, sentiment analysis is a very popular research



topic. Several studies conducted experiments on sentiment analysis with data from online reviews (Calheiros, Moro & Rita (2017); Li & Wu (2010); Serrano-Guerrero, Olivas, Romero & Herrera-Viedma (2015); Gan, Ferns, Yu, & Jin (2017)), however, not many related with theme park experience (Niu, Park & Kirilenko (2019)). This study highlights the inherent value of analysing and interpreting theme park visitor satisfaction from the user generated content. The research questions on the present theses focuses on understanding customer experience and which variables influence customer evaluation and satisfaction while visiting major U.S. theme parks. The park offers visitors a wide array of attractions and monitoring customer's satisfaction and perceptions is critically important in this industry.

## **2. Literature Review**

### **2.1 Customer Engagement and Digital Interactivity**

Delivering an efficient, relevant and engaging experience for both the customer and the company, increasingly relies on a deep knowledge about the customer, meaning, who they are, the devices they use to connect to the company and the content they want to see. The digital transformation of marketing over the last years is reflected on how firms and customers have embraced new technologies. Technological innovations such as the increasing home Internet, websites, search engines, email platforms, mobile devices and the development of social media platforms influenced not only the way that customers behave but also allows marketers to collect information on customers' location and target their advertisements according to these data. Social media can be defined as the various methods of online communication such as social networking, user-sponsored blogs, multimedia sites, company sponsored websites, collaborative websites as well as podcasts and includes the entire scope of the activities that a majority of individuals who participate in online communications would be involved with (Husain, Ghufra, & Chaubey, 2016).

In the last decade, due to the development of social media and digital technology, marketers realized that there are other ways beyond purchases through which customers can contribute to the firm, such as discussing the brand on social media or write feedback on the company's website. Such developments have empowered customers to engage more with firms, either positive or negatively which led to the rise of the concept of customer engagement. MSI considers customer engagement as "customers' behavioural manifestation toward a brand or firm beyond purchase" (MSI, 2010). A more broad definition from Vivek, Beatty, and Morgan (2012, p. 133) is customer engagement as "the intensity of an individual's participation in and

connection with an organization’s offerings or organizational activities, which either the customer or the organization initiates”. Therefore, customer engagement involves all the individuals’ interactions with the brand or product, based on their experiences with the organization, without necessarily purchasing it. Potential or current customers build experience-based relationships not only through previous interactions with the organization but also through experiences from other customers. Upon the same patterns, Van Doorn et al. (2010, p. 253), who focus on the behavioural part of customer engagement, defined it as “the customer’s behavioural manifestation toward a brand or firm, beyond purchase, resulting from motivational drivers.” Moreover, Kumar et al. (2018, p. 4), defined customer engagement as “the mechanics of a customer’s value addition to the firm, either through direct or/and indirect contribution” and identified four components of customer engagement value: customer purchasing behaviour, customer referral behaviour, customer influencer behaviour, and customer knowledge behaviour. Pointing out the online or media aspects of the concept, Gambetti, Graffigna, and Biraghi (2012, p. 668) defined customer-brand engagement as a “multi-dimensional concept combining elements such as attention, dialogue, interaction, emotions, sensorial pleasure, and immediate activation aimed at creating a total brand experience with customers”. Also, Mollen and Wilson (2010, p. 922) agreed on customer engagement being the interaction and emotions to create a total brand experience, defining it as “the customer’s cognitive and affective commitment to an active relationship with the brand as personified by the Web site or other computer-mediated entities designed to communicate brand value”.

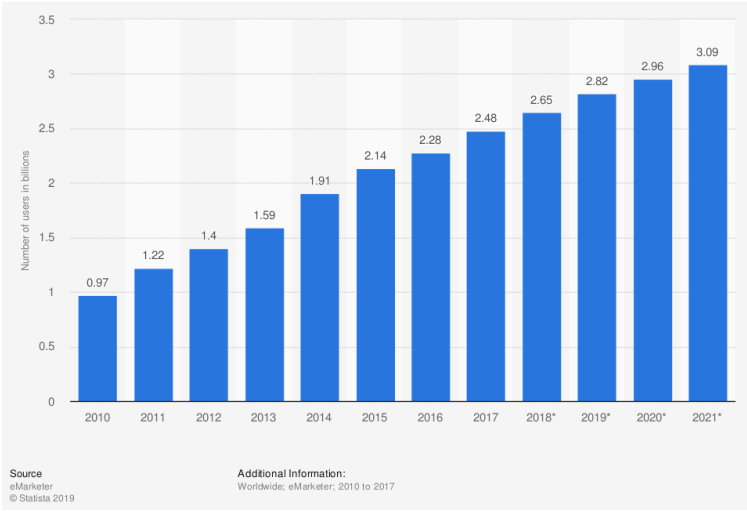


FIGURE 1: NUMBER OF SOCIAL MEDIA USERS WORLDWIDE FROM 2010 TO 2021 (IN BILLIONS)

In fact, engagement strategies by organizations are an extension of developing relationships with customers or potential ones. It is therefore highly important for firms to understand the behavioural activities of customers around the world to keep them engaged. The appearance of social media services brings out an opportunity to engage customers and their social bonds to help them meet their needs and deepen their relationships. Most importantly, social media provides a rich set of customer sentiment and customer perceptions that can be used to make even more powerful business decisions. Social network usage worldwide is ever-increasing as it can observe from figure 1 above and this explains the increasing online interactivity between organizations and its customer base. Social media facilitates the creation and sharing of knowledge, information, ideas, opinions and insights, and allows companies to actively participate in the daily customers' life, influencing customer decisions by delivering an online experience.

Research findings indicate that customers use social media to gather information about potential purchases and to look for new products, which can also cause mind-set change about a brand. As an example, Xiang et al. (2015) conducted an empirical study exploring big data analytics to better understand the relationship between hotel guest experience and satisfaction. They define Big Data as a “term that describes large volumes of high velocity, complex and variable data that require advanced techniques and technologies to enable the capture storage, distribution, management and analysis of information”. This study applies text analytics to classify a large amount of online customer reviews from Expedia.com, to explore and demonstrate the utility of these data, as well as identify inherent relationships between these two domains of variables in hotel management. Nowadays, people tend to search on internet for feedback from other customers in order to understand if it is definitely the best option to take. If the customer decides to make his initial purchase, it constitutes a “customer experience”. This experience is positive if the firm meets the customer's expectations. The positive experience that the customer has with the firm then leads to positive emotions, as discussed by Gupta, Pansari and Kumar (2018) - If a customer is satisfied with and emotionally attached to the firm, then he will be engaged with the firm through purchases (direct contribution), referrals, influence, and feedback (indirect contributions).

## **2.2 Customer Experience**

The increase usage of social media changed the customer experience and its dynamics and puts customers at the core of their business. Schmitt (1999) was one of the first scholars to emphasize

the importance of customer experience, taking a multidimensional view and identifies five types of experiences: sensory (sense), affective (feel), cognitive (think), physical (act), and social-identity (relate) experiences. Recent business practice has also broadly defined the customer experience as the internal and subjective response customers have to any direct or indirect contact with a company (Meyer & Schwager, 2007). Direct contact generally occurs in the act of purchase and is usually initiated by the customer. On the other hand, indirect contact most often involves word-of-mouth (WOM) recommendations, advertising, news reports and reviews. The experience is created not only by those elements which the company can control such as service interface, retail atmosphere and, price, but also by elements that are outside of the company's control, such as influence of other customers. Word of mouth, or WOM, is the influence of someone's informal opinion about products and brands derived from consumption experiences in which there is an information provider and receiver (Sandes, & Torres, 2013). Overall, the customer experience encompasses the total experience, including the search, purchase, consumption, and after-sale phases of the experience, and may involve multiple retail channels. It consists of individual contacts between the firm and the customer at several phases of the experience (Homburg et al., 2015; Schmitt, 2003). Monitoring customer satisfaction and perceptions is critically important in the theme park industry. One of the main reasons of the technology development, is the ability to understand how customers value a particular product or service. Customer satisfaction is a post-choice evaluative judgment, concerning a specific transaction, and it is central to understanding customers' consumption experiences (Ali, Kim, Li, & Jeon, 2017). Pine and Gilmore (1998) argued that creating a distinctive customer experience can provide enormous economic value for firms. They specifically address the importance of experiences in today's society and the opportunities for firms to benefit from defining and executing successful customer interactions which can enhance a company's ability to keep their customers forever. The rapidly expanding variety of new technologies are empowering companies to learn and understand better what customers want and why. The more experiences a customer has with a company, the more teaches the company. Delivery a strong and successful customer experience it should be a priority and one of the most important management objectives.

### **2.3 Customer satisfaction in Theme Park context**

According to Milman (2009) theme parks are a relatively new form of entertainment attraction that attempts to create a fantasy atmosphere of another place and time. Similarly, the International Association of Amusement Parks (IAAPA, 2019) define theme parks as a specific

type of amusement parks that offer themed attractions, food, stores, rides, entertainment, and costumes. With the development of theme parks, the leisure and tourism industry has faced intense competition from a wide range of rapidly emerging innovative leisure products (Milman, 2001). Consequently, the growing importance given in Theme park, several studies have addressed satisfaction drivers in this context.

A study conducted by Cheng, Guo, and Ling (2016) consisted on understanding the relationship between satisfaction and the following attributes: recreation experience, park service and management, park environment, guidance information, amusement consumption, and park facilities. As a result, they found that recreation experience is the most significant factor in visitor satisfaction, whereas the park facilities attribute is the least significant. Additionally, Geissler and Rucks (2011) studied ten years of customer data through a survey distributed to existing theme park visitors during a 10-year period and concluded that visitors evaluate their theme park visits, primarily on their overall park experience and value, i.e, the park offers fun and educational experiences; the park's food quality, value, and variety; as well as the park's cleanliness and atmosphere. The ticket price and the money spend on merchandising and food, meaning the overall price, is also a significant predictor of customer satisfaction. Although, as visitors are exposed to more of the different experiences the park offers, they become even more satisfied with the overall experience. Even a relatively expensive experience can be seen as a great value, if the perceived benefits exceed the associated costs. In what concerns to the customer expectations, just meeting relatively higher expectations in many cases may be sufficient to help maintain high levels of customer satisfaction (Geissler & Rucks, 2011). In a similar research, Fletcher and Fletcher (2003) studied 25 of Florida's State Parks in order to determine predictors of visitor satisfaction. The result of this large survey indicate that visitor satisfaction is strongly related to maintenance of the park, for example cleanliness of the park and with the behaviours of park personnel, i.e., being prompt, helpful, courteous and friendly. In any enterprise, customers are positively affected by the presence and politeness of staff members, or negatively affected by their absence and indifference. Upon the same patterns, Ali, Kim, Li, and Jeon (2017) proposed a structural model based on a survey data to measure visitor satisfaction in Malaysian theme parks. They pointed out the 'significant effect of physical environment, and indicated that physical setting, interaction with staff and interaction with other customers had a significant impact on both customer delight and satisfaction. Moreover, customer delight influenced customer satisfaction and loyalty. The results suggest that theme park managers need to pay attention to maintaining a good physical setting, managing both their

human resources and the behaviour of other customers in order to ensure it is received delightful experiences.

On another hand, Pine and Gilmore (1998) identified the 13 most important attributes of theme parks for visitor, such as general shows and entertainment, animal shows, water rides, thrill rides, big-name entertainment, roller coasters, cartoon characters, movie-based rides and entertainment, souvenir gifts, exhibits/attractions promoting learning, variety/quality of restaurants, animals in natural habitats, and rides for young children. Furthermore, Milman (2009) also listed the main factors that customers value when evaluating a theme park: entertainment variety and quality; courtesy, cleanliness, safety, and security; food variety and value for the money; quality of the theme and design; the availability and variety of family-oriented activities; the quality and variety of rides and attractions; and price and value for the money. Milman et al. (2012) indicated that the most important attributes impacting visitors' satisfaction were staff's knowledge of the theme park, roller coasters' safety, the park's security, and ticket prices.

Nevertheless, Fotiadis (2016) suggested that satisfaction and revisiting intention were significantly affected by a participation intensity indicator, measured by the time visitors spent on each activity experienced in the park. Information on regarding the factors fostering visitors' satisfaction, use of time and preferred activities can be obtained through analysing visitors' behaviours. Specifically, through understanding where people went, where they stopped, how they spent their time, what they did, their estimated age, their gender, the number of adults and children, the levels of crowding, the month or season, the day of the week, the time of day, and any special events or programs going on, managers can understand relevant information for a decision making.

The previous studies on theme parks have been conducted in the context of experience and satisfaction with traditional survey data rather than online travel reviews in social media. On a different perspective, researchers like Yoo and Gretzel (2008) have reported that 75% of travellers refer to online reviews when planning their trip and Steinbrink, 2008 shows that 88% of leisure travellers are influenced by online reviews. The results of investigation done by Pan, Bahja and Cobanoglu (2018), of the six main attributes that influence U.S theme park visitors, the analysis revealed that online reviews were the most influential factor for U.S. theme park visitors. The results ranked price as the second-most influential factor and type of theme park as the third. Distance from accommodation seemed to be less of a concern for U.S. theme park

visitors. Moreover, Niu, Park and Kirilenko (2019) conducted a study to investigate visitors' perceptions of three theme parks in Orlando through TripAdvisor reviews. They revealed that overall, the main park performance dimensions expressed in reviews can be described as the "shared features" (e.g. waiting time, show/event/festival, food, and guest service), "unique features" (e.g. unique attractions and experience, special service), "positive experiences" (e.g. core experiences, roller coaster, staff, and food) and "negative experiences" (e.g. waiting time, cost, and price).

### **3. Methodology**

#### **3.1 Research Context**

Due to the availability of a large amount of user-generated data on social media, there is a growing interest in using automated computational methods such as text mining and sentiment analysis to process large amounts of user-generated data and extract meaningful knowledge and insights. Traditional content analysis methods are no longer able to meet organizations' needs to analyse the large amount of updated content on a daily basis. Therefore, it is conducted a case study to analyse and compare the written online customer reviews of the 8 most reviewed theme parks in U.S.

In the analysis of all the information collected, it will be applied sentiment analysis approach in order to comparatively examine the underlying patterns of online customer reviews, develop the profile of the customers, its importance and influence in a company's marketing strategy, how it may help providing a way to reach potential customers as well as understanding online behaviour of customers and measure customer experience. Therefore, applying sentiment analysis technique to social media content from TripAdvisor is extremely useful to find previously unknown, hidden patterns. In spite of the growing global popularity of the theme park industry, this segment lacks a universal evaluation and rating system or a comprehensive inventory of product attributes that may be associated with the guest's experience. (Milman, 2009).

There are different social media websites where customers can share customers' feedback concerning their experience in the theme park. However, there is no uniformity of the attributes evaluated or a reliable system to evaluate and compare guest experiences. For example, the Theme Park Insider (2008) and the Theme Park Critic (2008) provide an opportunity for readers to review, post comments and rate specific attractions, dining and events and other features of

the world's top theme and amusement parks, usually on a Likert-type numeric scale while comparing with TripAdvisor, is to measure it on a scale from 1 to 5.

Since TripAdvisor is one of the most famous and well-known travel and vacation website and one of the most influential online WOM sources in the hospitality and tourism context, with a growing number and diversity of global internet users who post reviews online every day, it is chosen as a basis for this study. The platform has been considered as “a leading provider of customer reviews in the hospitality and tourism industry in terms of the number of posts and number of views” (Molinillo et al., 2016). TripAdvisor recently conducted a survey for both travellers and business owners and questioned “Do online review sites like TripAdvisor have a positive impact on the hospitality industry?” where, 82% of business owners agreed with this statement, 43% strongly agree and only 6% disagreed. Furthermore, they also state that 70% of surveyed businesses have taken steps to improve their quality of service as a result of a review.

### 3.2 Data Collection

To select the most relevant articles for this study, the focus was on finding relevant journal articles on Theme park experience, within a recent timeframe including the last six years. In order to select the relevant set of articles and academic journals, the following key words were researched: customer experience and social media; theme park and customer satisfaction. The most suitable articles and also some books were chosen to be discussed throughout the development of the thesis, in order to underpin the final results. A qualitative and quantitative research will be carried out and secondary data will be used from social media platform – TripAdvisor.

<i>Theme Park/Month (Nº Reviews 2017)</i>	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
<i>Magic Kingdom</i>	575	523	598	678	569	474	503	573	390	491	371	396	<b>6141</b>
<i>Universal's Islands of Adventure</i>	356	278	364	417	371	332	433	445	251	289	228	215	<b>3979</b>
<i>Universal Studios</i>	413	284	372	418	420	356	440	444	274	357	275	238	<b>4291</b>
<i>SeaWorld Orlando</i>	203	153	204	275	209	166	219	229	173	180	128	157	<b>2296</b>
<i>Disney's Animal Kingdom</i>	251	268	275	279	316	341	356	376	244	315	257	250	<b>3528</b>
<i>Disney's Hollywood Studios</i>	230	190	226	262	233	168	188	252	150	169	139	155	<b>2362</b>
<i>Epcot</i>	313	297	377	369	325	247	227	250	193	265	228	198	<b>3289</b>
<i>Discovery Cove</i>	87	86	95	137	133	131	114	155	93	102	78	48	<b>1259</b>

TABLE 1: THEME PARKS WITH MORE REVIEWS ON TRIPADVISOR 2017



The experimental setup drawn for this research is based on the examination of TripAdvisor reviews by actual customers of the eight Theme Parks in Orlando, Florida. The approach used to decide which theme parks will be under analysis was the ones with the most reviews in 2017. As shown in Table 1, the most reviewed theme parks were Magic Kingdom, Universal’s Islands of Adventure, Universal Studios, SeaWorld Orlando, Disney’s Animal Kingdom, Disney’s Hollywood Studios, Epcot and Discovery Cove. SeaWorld Orlando is a theme park and marine zoological park, owned and operated by SeaWorld Parks & Entertainment. Discovery Cove and Aquatica, forms SeaWorld Parks and Resorts Orlando, an entertainment complex consisting of three parks and many hotels. Universal Studios Florida is also a production studio inspiring its guests to "ride the movies", and it has numerous attractions and live shows. Together with Universal’s Islands of Adventure, both parks are components of the larger Universal Orlando Resort. Finally, Magic Kingdom, Epcot, Disney’s Hollywood Studios and Disney Animal Kingdom are part of the Walt Disney World Resort in Orlando.

The data set spans a period from January to December 2017 and includes a total of 800 reviews, meaning, 100 reviews per theme park. In order to define a strategy on how to collect the 100 review per theme park between all the reviews from 2017, it was decided to extract approximately the same number of reviews per month in order to also have the perception of some seasonality pattern that may happen. Additionally, due to the large quantity of available online reviews and the big variations in the review quality presents a challenge to effectively extract useful information from online reviews. For each review, it was manually collected both structured information and unstructured information. The following table 2 shows the review and user features that will be extracted from TripAdvisor:

<b>Feature name</b>	<b>Source type</b>	<b>Data type</b>	<b>Description</b>
Username	User	Categorical	Username as registered in TripAdvisor
User country	User	Categorical	User's nationality
Nr. Reviews	User	Numerical	Number of reviews
Nr. Contributions	User	Numerical	Total hotel reviews
Helpful votes	User	Numerical	Helpful votes regarding reviews's info
Score	Review	Numerical	Review score [1,2,3,4,5]
Review date	Review	Date	Date when the review was written
Review text	Review	Text	Textual content of the review
Review language	Review	Categorical	Language of the review
Period of stay	Review	Categorical	Period of stay

Traveller type	Review	Categorical	{Business, Couples, Families, Friends, Solo}
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TABLE 2: REVIEW AND USER FEATURES EXTRACTED FROM TRIPADVISOR

### 3.3 Proposed Approach

The framework in figure 2 represents the proposed social media competitive analytics framework with sentiment analysis for industry-specific marketing intelligence.

It is proposed to identify the leading companies in the theme park industry, compare their social media reviews for competitive analysis and identify the sentiment polarity through sentiment analysis and the main drivers of customer satisfaction in order to help decision making.

The proposed methodology consists of 4 stages, which comprise collecting data; conduct a sentiment analysis; highlight the main attributes for the costumers; and analyse and get into the main conclusions. The result of the sentiment analysis can be used to show the variances between a company’s key performance metrics. Each variance can either show in which areas a company is really good or show a potential problem area to be fixed and to highlight the opportunity to improve the company’s overall performance

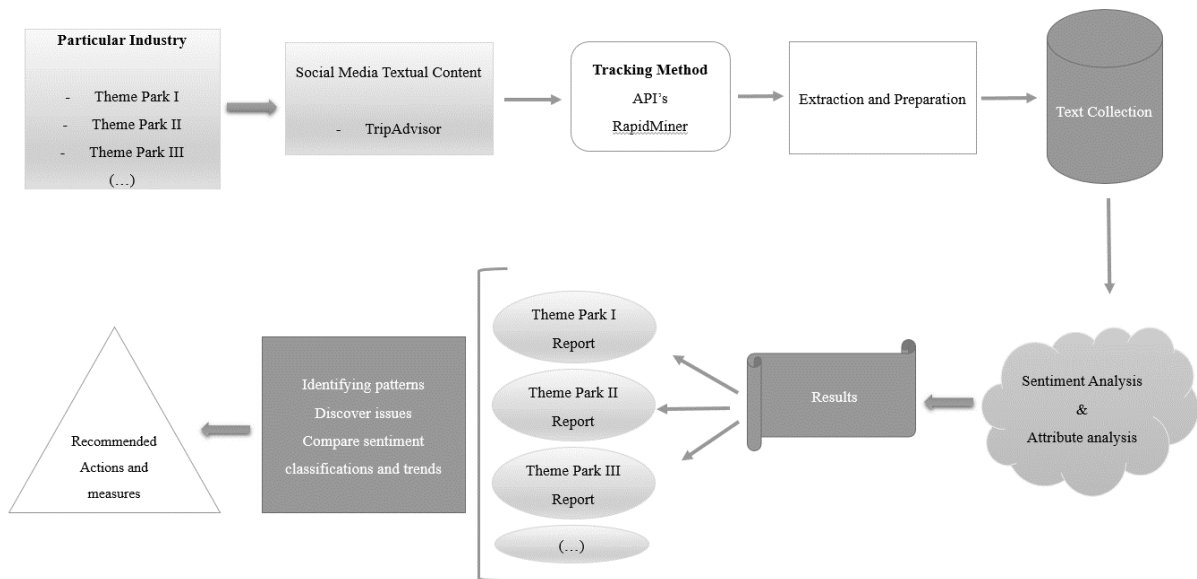


FIGURE 2: A SOCIAL MEDIA COMPETITIVE ANALYTICS FRAMEWORK WITH SENTIMENT ANALYSIS

After all data is gathered, the next step was to conduct a sentiment analysis. There are three APIs for sentiment analysis used for comparison coming from Alchemy API, Aylien, and Indico. The one chosen to use in the present analysis was the Aylien API, through RapidMiner programme, that returns two pairs of output values. The first pair consists of “polarity” indicator and “confidence” in this indicator. The polarity indicator takes on

positive, neutral or negative as values and the polarity confidence is a number in a range from 0 (highly negative) to 1 (highly positive). A value close to 1 indicates higher confidence. The other output pair is subjectivity indicator and its confidence value. There is a distinctive lack of open source solutions for data mining and data analytics, but one of the most decent, efficient and free, software solutions is RapidMiner Studio. This data science software platform provides solutions such as data preparation, machine learning, deep learning, text mining, and predictive analytics. The tool has a good set of predefined operators behind solving a wide range of problems in order to give more transparency on the process. It can also process information from various sources (databases, local files, etc). On top of that, RapidMiner is a complete tool for ETL (Extract, Transform and Load) processes. ETL is defined as a process that extracts the data from different source systems, by transforming and loading the data into the Data Warehouse system. A properly designed ETL system extracts data from the source systems, enforces data quality and consistency standards, transforming it into a proper storage format for the analysis purposes, and finally delivers data in a presentation-ready format so that end users can make decisions.

### **3.4 Sentiment Analysis**

The technological advancements in the last years have led to the emergence of large databases with information from customer interactions. (Sundararajan et al. 2013). The data extracted from online platforms and networks are used to understand online customer behaviour, to measure online customers' responses to digital marketing stimuli, and to optimize digital marketing actions that foster customer behaviour which benefits the business. It is necessary to highlight that by analysing this type of data it also provides insights such as the latest market trends, monitor customer loyalty and helps to have an effective decision making, strategic thinking, acting and consequently, achieving competitive advantage.

In addition, by extracting sentiment from a piece of text such as a tweet, a review or an article can provide to companies valuable insight about the reviewer's emotions and perspective: whether the tone is positive, neutral or negative, and if the text is subjective (meaning it's reflecting the reviewer's opinion) or objective (meaning it's expressing a fact). Sentiment analysis, the computational detection and study of sentiments in text (Li & Wu, 2010), classifies sentiments within the analysed text into three categories: positive, negative and neutral, and measures the sentiment degree in range (0; 1) – Sentiment Polarity.

For polarity and subjectivity classification it is necessary to the following process:

1. Classifying a sentence as subjective or objective, and for a subjective sentence classifying it as expressing a positive, negative or neutral opinion;
2. Classifying a document classified as an opinion, expressing a positive or negative opinion and measures the sentiment degree in range (0; 1).

Firstly, often called subjectivity classification, it mainly consists in detecting whether a given sentence is subjective or not (Table 3). An objective sentence expresses a fact while a subjective sentence can express opinions, evaluations, beliefs and emotions. If express an opinion, meaning, the sentence is subjective, it also allow to know whether the opinion express positive or negative sentiment. Moreover, a subjective sentence may not express any positive or negative sentiment and for this reason, it should be classified as “neutral”. As Serrano-Guerrero at al. (2015) state in his study, a good subjectivity classification can ensure a better sentiment classification. Secondly, commonly known as sentiment classification or sentiment polarity, aims to classify sentences into three main categories: positive, negative or neutral and measures the sentiment degree in range (0; 1). This task is closely related to sentiment rating prediction, which consists in measuring the intensity of each sentiment (Serrano-Guerrero, et al., 2015).

As represented in figure 3, the principal goal when dealing with sentiment analysis usually consists in distinguishing between subjective and objective sentences. If a given sentence is classified as objective, no other fundamental tasks are required, while if the sentence is classified as subjective, its polarity needs to be estimated.

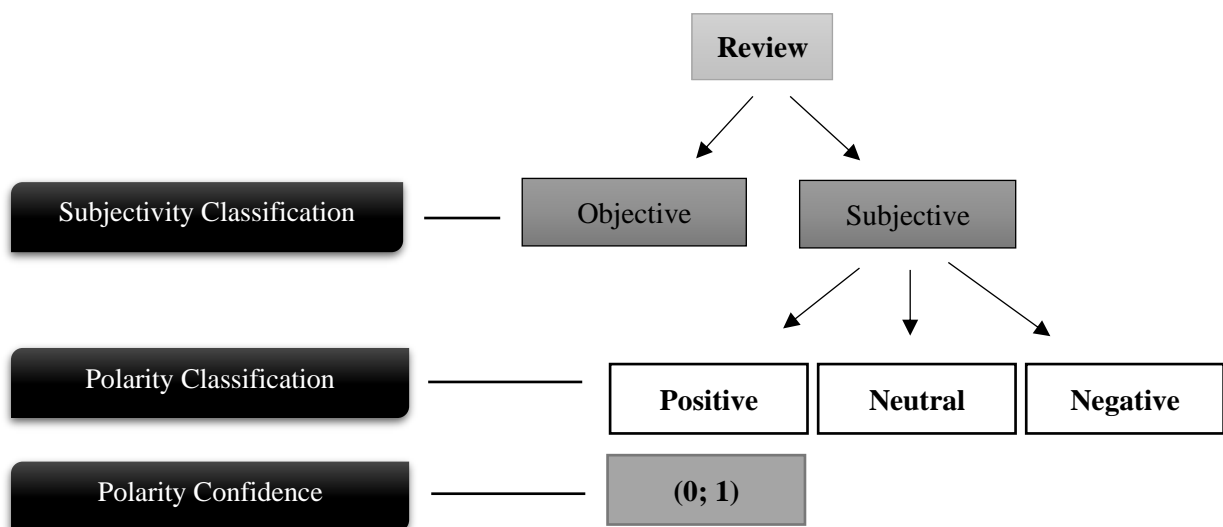


FIGURE 3: SENTIMENT ANALYSIS WORKFLOW

For instance, an on-line customer review has a double role, functioning both as informant and as recommender. As informant, by providing information about the product, such as, functionalities and characteristics, while as recommender provides recommendations by previous customers in the form of online WOM. The number of on-line reviews of a product may be seen as representing the product’s popularity, since it is reasonable to assume that the number of reviews is related to the number of customers who have bought the product (Chatterjee, 2001; Chen & Xie, 2004). Since there is no standard format, the content of on-line reviews, meaning the review quality, varies from subjective to objective. A high-quality review is one that is more logical and persuasive and supports its evaluation with reasons based on the facts about a product, which means customers are more likely to believe the message. On the contrary, low-quality reviews are emotional and subjective, with no information except expressions of subjective feelings or simple interjections (Park, Lee & Han, 2007).

TripAdvisor recently conducted a survey to gather information about what makes a helpful review. On one hand, concerning the writing style, 63% of business owners feel it’s important to provide a context for opinions; 58% of respondents say it’s important to share the pros and cons in order to give a balanced view of the product; 30% of respondents feel it’s important to explain the context of why they visited, or who they were traveling with; 29% think that the way it is written is what matters. On the other hand, what the respondents think is not a good review, 51% when a reviewer doesn’t provide enough detail; 45% when it’s too much details I the comments; 40% when reviews are written by someone who “sounds angry”; 31% when it’s not very well written. Overall, the most useful factors in a review are, explaining the necessary details, written within 3 months of the experience, relate personal and unique experiences, use specific examples and realistic facts and finally, mention how the service offering could be improved.

<b><i>Park</i></b>	<b>Subjectivity</b>	<b>Total</b>
<i>Discovery Cove</i>	Objective	3
	Subjective	97
<b><i>Discovery Cove Total</i></b>		<b>100</b>
<i>Disney’s Animal Kingdom</i>	Objective	1
	Subjective	99
<b><i>Disney’s Animal Kingdom Total</i></b>		<b>100</b>
<i>Disney’s Hollywood Studios</i>	Objective	2
	Subjective	98
<b><i>Disney’s Hollywood Studios Total</i></b>		<b>100</b>

<i>Epcot</i>	Objective	2
	Subjective	98
<b><i>Epcot Total</i></b>		<b>100</b>
<i>Magic Kingdom Park</i>	Objective	2
	Subjective	98
<b><i>Magic Kingdom Park Total</i></b>		<b>100</b>
<i>SeaWorld Orland</i>	Subjective	100
<b><i>SeaWorld Orland Total</i></b>		<b>100</b>
<i>Universal Studios</i>	Subjective	100
<b><i>Universal Studios Total</i></b>		<b>100</b>
<i>Universal's Islands of Adventure</i>	Objective	4
	Subjective	96
<b><i>Universal's Islands of Adventure Total</i></b>		<b>100</b>

TABLE 3: SUBJECTIVITY ON REVIEWS BY THEME PARK

## 4. Results

### 4.1 Sample characteristics

Spinks, Lawley, and Richins (2005) state the level of visitor satisfaction at attractions might vary according to demographic characteristics such as visitors' origins, gender, and age groups. So, looking through our reviewer's sample in general, some characteristics are brought up such as the male overrepresentation of 52% against female with 48% (Table 4).

Additionally, it can bring some light to another characteristic: the number of contributions (Table 5). TripAdvisor has this type of indicator, in order for the users interested in reading a specific review, could understand if it is a person that is used to write a review, positive or negative, and influence somehow the one that is reading. For example, the contributions of certain user can list at the moment, 53 contributions, which are comprised in 10 forum posts, 37 ratings and 6 reviews. Epcot and Disney's Hollywood Studios are the theme parks which had more reviewers with apparently more previous experience while using TripAdvisor. Furthermore, once an attraction is visited, a review should be written in order to describe all the points of experience. A rating is completely different to a review. It is difficult to score a theme park only based on a scale rate. That's why the number of contributions can also be an important characteristic to look for.

<b><i>Gender</i></b>	<b><i>Percentage (%)</i></b>
<i>Male</i>	52
<i>Female</i>	48

TABLE 4: PROFILE OF THE RESPONDENTS BY GENDER

<i>Theme Park</i>	<i>Average N° Contributions</i>
<i>Magic Kingdom</i>	222.170
<i>Sea World</i>	99.150
<i>Universal’s Islands of Adventure</i>	192.950
<i>Universal Studios</i>	176.930
<i>EPCOT</i>	233.080
<i>Disney’s Hollywood Studios</i>	248.760
<i>Disney Animal Kingdom</i>	223.040
<i>Discovery Cove</i>	123.220

TABLE 5: AVERAGE N° OF CONTRIBUTIONS BY THEME PARK

In table 6, information about the local residence of the reviewers is presented. It is shown that in all theme parks, America residents comprised the majority of respondents, except for Discovery Cove which had more reviews from people from Europe (with a difference of 5%). On average, 59% of the reviewers are residents in America, 33% are residents in Europe, 4% equals for Asia and Oceania and 1% for Africa. This fact can be justified by two facts. First, the filter used for the extraction of reviews – English preference. Second, the proximity of the people from North America have to all the theme parks in study. A close proximity of accommodations to a theme park location decreases visitors’ transportation costs, increases their interest (Milman, 2001) and consequently, contributing to the overall satisfaction.

<i>Theme Park/Continent</i>	<i>% of Reviews</i>
<b><i>Discovery Cove</i></b>	
<i>Africa</i>	1
<i>Asia</i>	1
<i>Europe</i>	55
<i>Oceania</i>	3
<i>America</i>	40
<b><i>Disney’s Animal Kingdom</i></b>	
<i>Asia</i>	3
<i>Europe</i>	27
<i>Oceania</i>	3
<i>America</i>	67
<b><i>Disney’s Hollywood Studios</i></b>	
<i>Asia</i>	4
<i>Europe</i>	28
<i>Oceania</i>	4

<i>America</i>	64
<b><i>Epcot</i></b>	
<i>Asia</i>	5
<i>Europe</i>	24
<i>Oceania</i>	10
<i>America</i>	61
<b><i>Magic Kingdom Park</i></b>	
<i>Africa</i>	2
<i>Asia</i>	5
<i>Europe</i>	25
<i>Oceania</i>	6
<i>America</i>	62
<b><i>SeaWorld Orlando</i></b>	
<i>Africa</i>	1
<i>Asia</i>	4
<i>Europe</i>	43
<i>America</i>	52
<b><i>Universal Studios</i></b>	
<i>Asia</i>	3
<i>Europe</i>	30
<i>Oceania</i>	4
<i>America</i>	63
<b><i>Universal's Islands of Adventure</i></b>	
<i>Asia</i>	4
<i>Europe</i>	33
<i>Oceania</i>	4
<i>America</i>	59

TABLE 6: DISTRIBUTION OF REVIEWS PER CONTINENT

In what concerns to the traveller type, in most of the reviewers it is difficult to obtain this information. On TripAdvisor, reviewers can specify what type of travel they are. Since a lot of reviewers had in the profile more than one options mentioned above, it was decided to choose the first option in the list. In general, 22% of the reviewers don't have the information available of what type of traveller they are, however, 17% followed by 12% of the reviewers are defined as "Family Holiday Maker" and "Like a local"(Table 7). For many families, a trip to Walt Disney World in Orlando, is a once-in-a-lifetime experience. The name Walt Disney has been preeminent in the field of family entertainment, where families could leave the stress and worry of everyday life behind once they entered his carefree, imaginary world. All along, Disney focused on making the experience one that people would remember for the rest of their lives,



meaning not also for younger kids but for adults too. It happen the same also for theme parks from Universal Group and Blackstone Group.

<i>Traveller Type</i>	<i>N° of reviews</i>	<i>%</i>
<i>Unknown</i>	176	22%
<i>Family Holiday Maker</i>	139	17%
<i>Like a Local</i>	92	12%
<i>Urban Explorer</i>	63	8%
<i>Foodie</i>	60	8%
<i>Thrill Seeker</i>	52	7%
<i>Luxury Traveller</i>	49	6%
<i>Nature Lover</i>	41	5%
<i>60 + Traveller</i>	25	3%
<i>Art and Architecture Lover</i>	22	3%
<i>Thrifty Traveller</i>	20	3%
<i>Shopping Fanatic</i>	17	2%
<i>Peace and Quiet Seeker</i>	17	2%
<i>Beach Goer</i>	12	2%
<i>History Buff</i>	9	1%
<i>Foodie</i>	2	0%
<i>Night Life Seeker</i>	2	0%
<i>Backpack Traveller</i>	1	0%
<i>Trends Developer</i>	1	0%
<b>Total</b>	<b>800</b>	<b>100%</b>

TABLE 7: TRAVELLER TYPE

In the table 8 it can be seen if there is any kind of seasonality patter in theme park experience. Seasonality refers to periodic fluctuations in certain business areas on a particular season which may refer to a calendar season such as summer or winter, or it may refer to a commercial season such as the holiday season. Kemperman et al. (2000) propose a framework of theme park choice behaviour that includes the three basic aspects of theme park choices and a time dimension - variety seeking, seasonality and diversification. It is argued that timing is also an important dimension in the framework and serves to understand the temporal aspects influencing theme park visitor choice behaviour. More specifically, in destination choices over time seasonality and variety seeking have a significant influence. Furthermore, Kemperman et al. (2000, p.14) states that “most amusement parks have open-air attractions, and visiting this type of park in summer, when the chances for good weather are better, may be more attractive.”. In climates where differences between the seasons are large, as for example, Northern U.S., seasonal shifts in preferences are usual. Analysing table 9, it is found a certain seasonality, especially as

schools breaks’ during March and April months as well as in summer months – June until August.

Theme Park/Month (Reviews 2017)	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
<i>Magic Kingdom</i>	⇒ 575	⇒ 523	↑ 598	↑ 678	⇒ 569	⇒ 474	⇒ 503	⇒ 573	↓ 390	⇒ 491	↓ 371	↓ 396	6141
<i>Universal’s Islands of Adventure</i>	⇒ 356	↓ 278	⇒ 364	↑ 417	↑ 371	⇒ 332	↑ 433	↑ 445	↓ 251	↓ 289	↓ 228	↓ 215	3979
<i>Universal Studios</i>	↑ 413	↓ 284	⇒ 372	↑ 418	↑ 420	⇒ 356	↑ 440	↑ 444	↓ 274	⇒ 357	↓ 275	↓ 238	4291
<i>SeaWorld Orlando</i>	⇒ 203	↓ 153	⇒ 204	↑ 275	⇒ 209	↓ 166	⇒ 219	↑ 229	↓ 173	⇒ 180	↓ 128	↓ 157	2296
<i>Disney’s Animal Kingdom</i>	↓ 251	↓ 268	↓ 275	↓ 279	⇒ 316	↑ 341	↑ 356	↑ 376	↓ 244	⇒ 315	↓ 257	↓ 250	3528
<i>Disney’s Hollywood Studios</i>	↑ 230	⇒ 190	↑ 226	↑ 262	↑ 233	↓ 168	⇒ 188	↑ 252	↓ 150	↓ 169	↓ 139	↓ 155	2362
<i>Epcot</i>	⇒ 313	⇒ 297	↑ 377	↑ 369	↑ 325	↓ 247	↓ 227	↓ 250	↓ 193	⇒ 265	↓ 228	↓ 198	3289
<i>Discovery Cove</i>	⇒ 87	⇒ 86	⇒ 95	↑ 137	↑ 133	↑ 131	⇒ 114	↑ 155	⇒ 93	⇒ 102	↓ 78	↓ 48	1259
<b>Total</b>	⇒ 2428	⇒ 2079	↑ 2511	↑ 2835	↑ 2576	⇒ 2215	↑ 2480	↑ 2724	↓ 1768	⇒ 2168	↓ 1704	↓ 1657	27145

TABLE 8: SEASONALITY ON THEME PARK EXPERIENCE

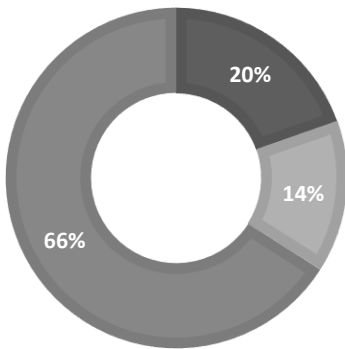
One of the variables which was also analysed was the period of stay, however, most of the reviewers don’t mention how many days they spent when visiting a theme park. A long time ago, theme parks were classified as 1-day amusement parks for families but nowadays, theme parks tend to produce “the experience of another place and time” by portraying a main theme through architecture, landscape, rides, shows, food services, costumed staff members, and retail. Geissler and Rucks (2011) agreed that the longer the theme park guests stay during each visit, the more the park exceeds their expectations and consequently, positively influence visitors ‘experience. It appears that as visitors are exposed to more of the different experiences the park offers, they become even more satisfied with the overall experience. Another example is the study of Pan, Bahja and Cobanoglu (2018) by revealing that visitors who spent more time at theme parks were more satisfied with the total cost and the value of their experience.

#### 4.2 Sentiment Classification Polarity

It was conducted the sentiment analysis for review contents by showing the sentiment polarity and the polarity confidence as well as the sentiment by ratings. Graphic 1 shows the sentiment polarity distribution for each of the 8 Theme parks. This provides a basic idea of the customers’ sentiment or attitude on the theme park experience. By comparing the different graphics, it is concluded that there are substantially more negative comments from the customers of Epcot with 30%, Disney Hollywood Studios with 29% and SeaWorld Orland with 25%. On the other hand, it is shown that the theme parks with more positive comments are Universal’s Islands of Adventure with 70%, Disney’s Animal Kingdom with 67%, Discovery Cove and Magic Kingdom both with 66%.

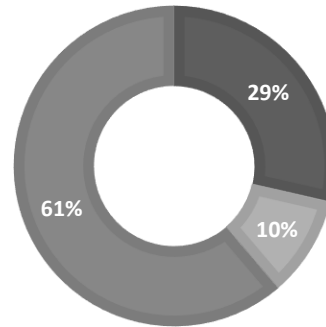
**POLARITY: DISCOVERY COVE**

■ negative ■ neutral ■ positive



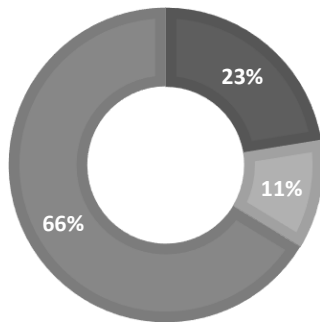
**POLARITY: DISNEY'S HOLLYWOOD STUDIOS**

■ negative ■ neutral ■ positive



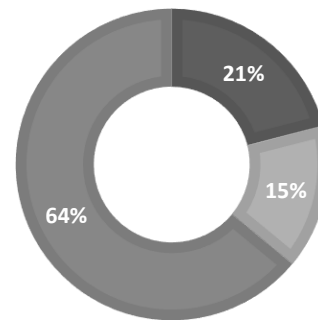
**POLARITY: MAGIC KINGDOM**

■ negative ■ neutral ■ positive



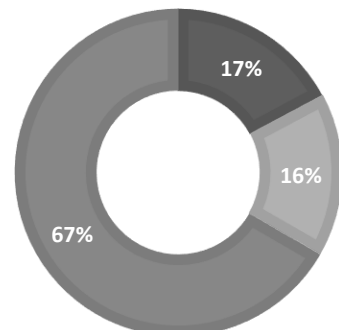
**POLARITY: UNIVERSAL STUDIOS**

■ negative ■ neutral ■ positive



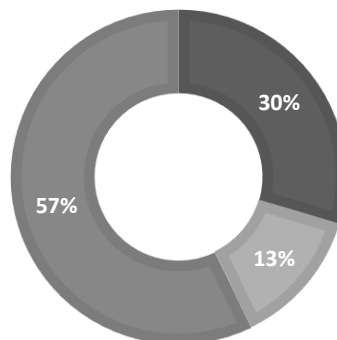
**POLARITY: DISNEY'S ANIMAL KINGDOM**

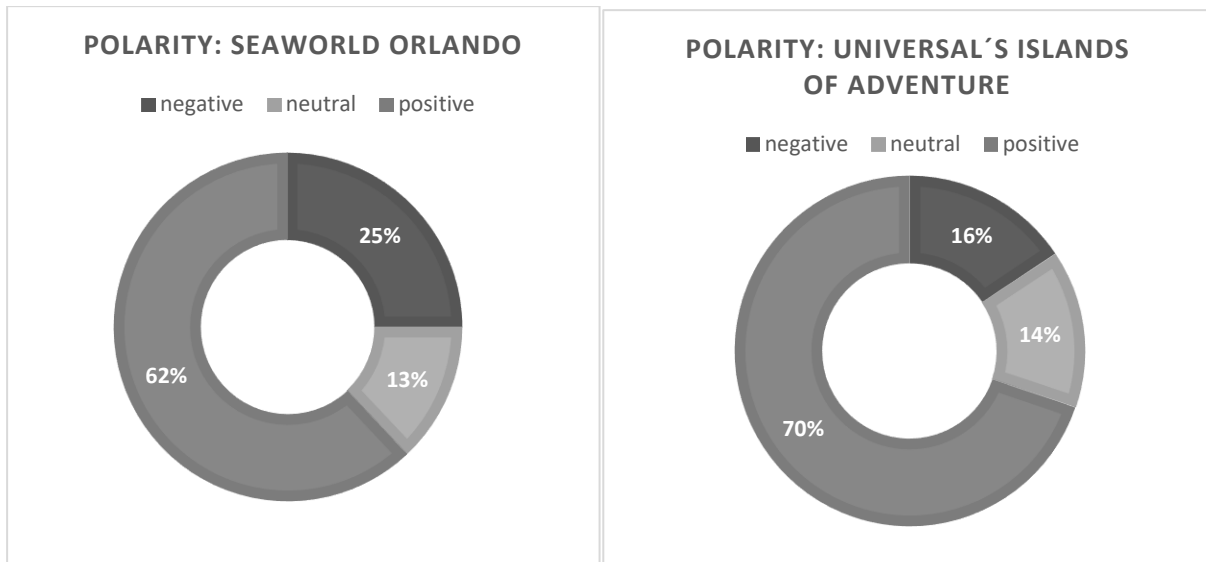
■ negative ■ neutral ■ positive



**POLARITY: EPCOT**

■ negative ■ neutral ■ positive





GRAPHIC 1: SENTIMENT POLARITY BY THEME PARK

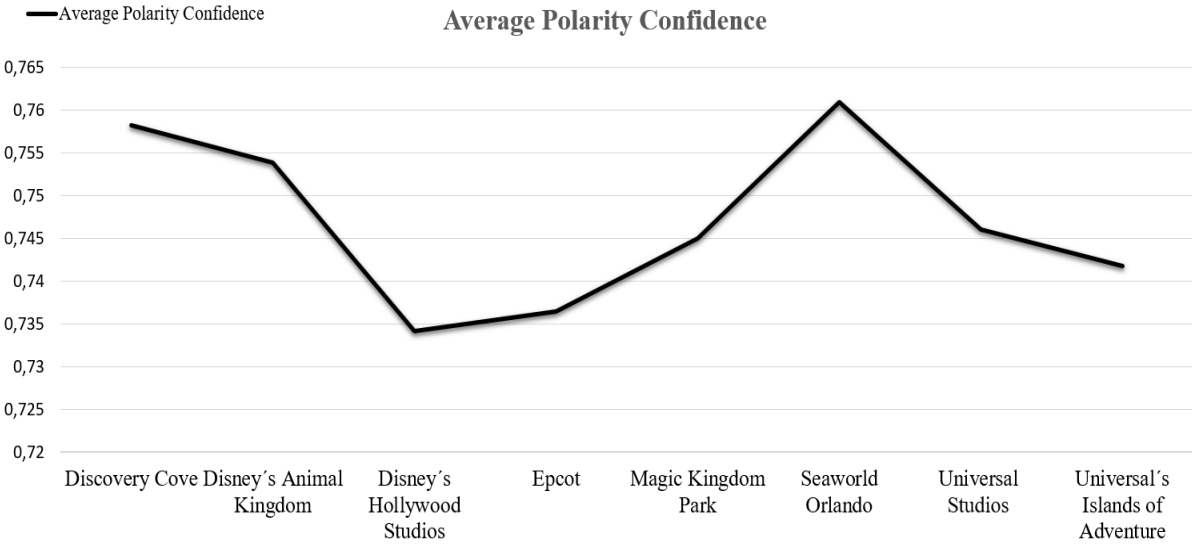
Based upon the sentiment analysis, it was assigned a polarity confidence value to each review. After each review is scored on a scale between 0 (highly negative) to 1 (highly positive), the scores of all the emotive phrases were combined to come to the overall polarity confidence of the review. Sentiment analysis shows that the average sentiment for all three theme parks is 0.747, extremely positive, with a standard deviation of 0.204. Graphic 2 shows the average sentiment polarity of each of the theme parks (the Y-axis represents the average sentiment score, while the X-axis indicates the corresponding theme park). On average, the overall polarity confidence for the eight theme parks were of 0.747. However, as it can be observed, Disney Hollywood Studios had considerably lower with a mean of 0.734, followed by Epcot with 0.736, Universal's Island o Adventures with 0.742, Magic Kingdom with 0.745 and Universal Studios with 0.746. The three theme parks with highest polarity confidence, on average, were Disney's Animal Kingdom with 0.754 after Discovery Cove with 0.758 and SeaWorld with 0.761.

In particular, if it is taken into consideration the standard deviation (Table 9), some more relations can be found. Discovery Cove and SeaWorld, independently of being the theme parks with the highest polarity confidence, both are also the ones with the largest standard deviation – 0.211 and 0.220 respectively. This suggest that while, on average, customers of both theme parks had highly positive sentiment polarity confidence of their experiences, their opinions varied quite a lot. On the contrary, Magic Kingdom had an average polarity confidence of 0.745 which in comparison with the remaining theme parks, is in the middle of the average polarity

confidence scale, but represents the lower standard deviation, which means that the data points tend to be close to the mean, i.e., the opinions are all around the sentiment polarity value.

<i>Theme Park</i>	<i>Polarity Confidence Standard Deviation</i>
<i>Magic Kingdom</i>	0.191
<i>Universal Studios</i>	0.193
<i>EPCOT</i>	0.203
<i>Disney’s Hollywood Studios</i>	0.203
<i>Universal’s Islands of Adventure</i>	0.205
<i>Disney Animal Kingdom</i>	0.207
<i>Discovery Cove</i>	0.211
<i>Sea World</i>	0.220

**TABLE 9: STANDARD DEVIATION POLARITY CONFIDENCE**



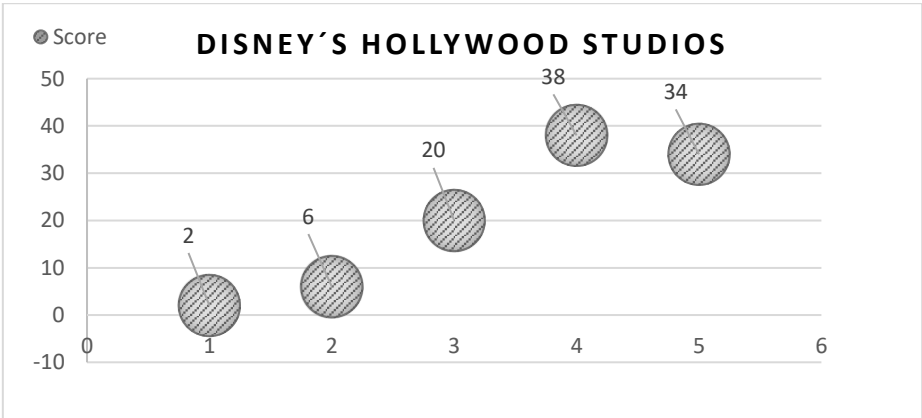
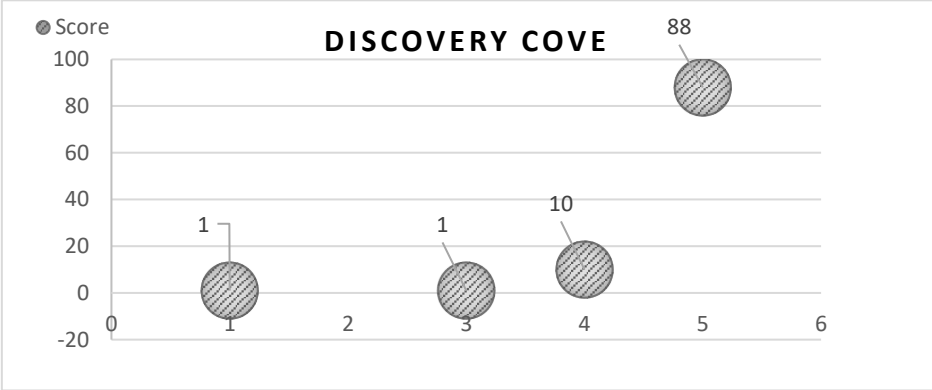
**GRAPHIC 2: AVERAGE POLARITY CONFIDENCE**

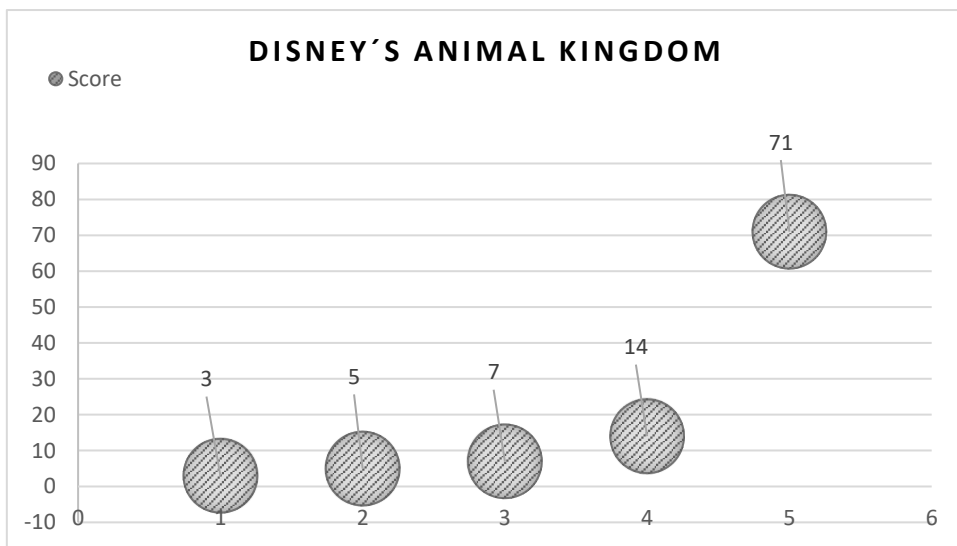
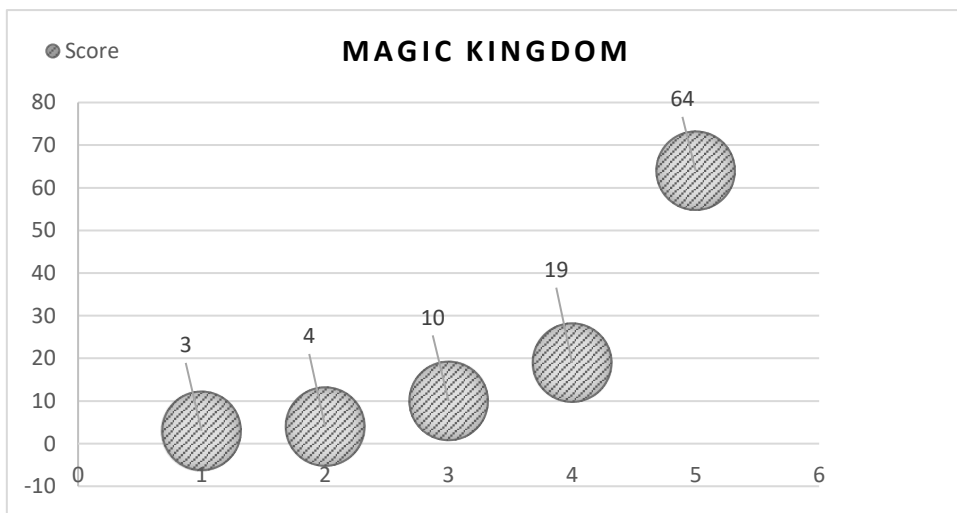
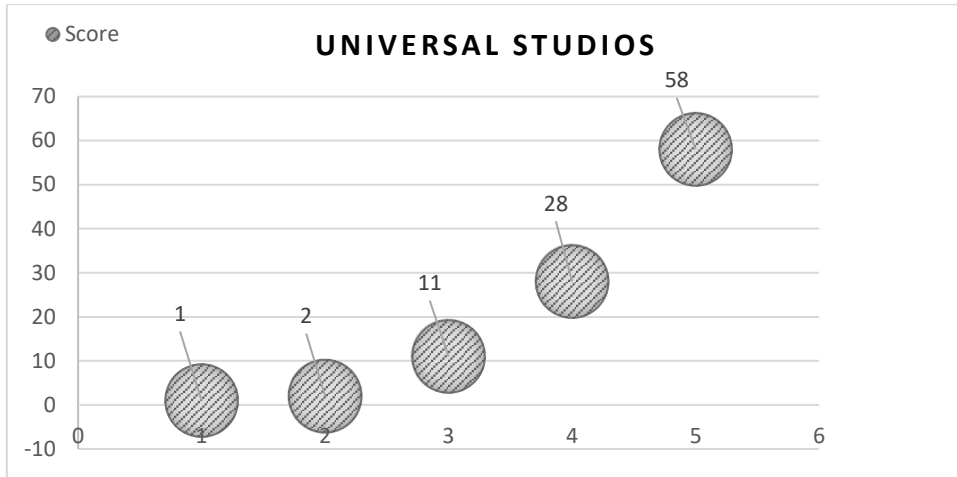
**4.3 Sentiment Classification by Rating**

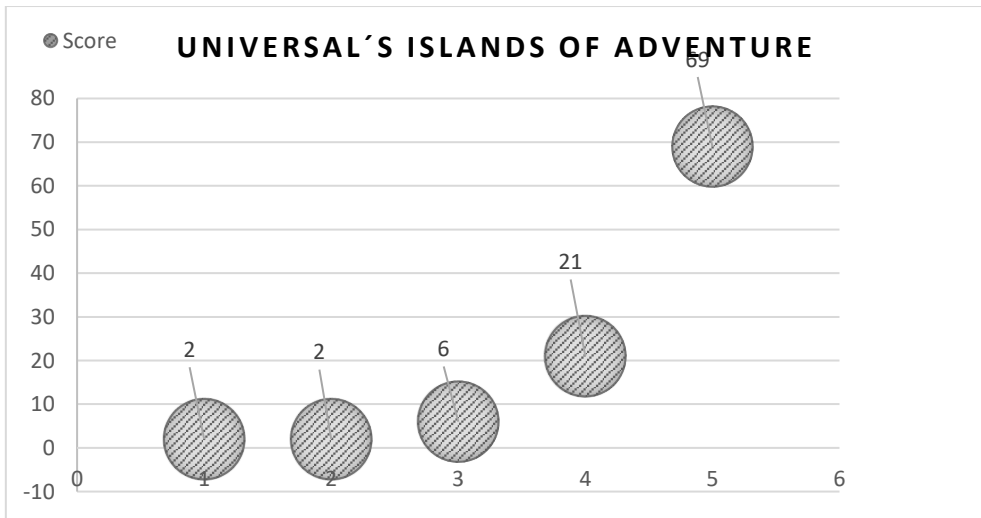
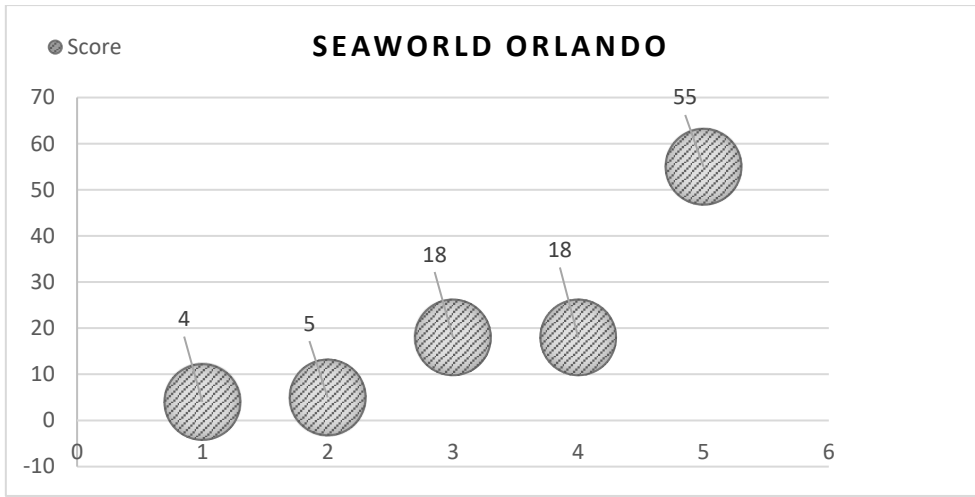
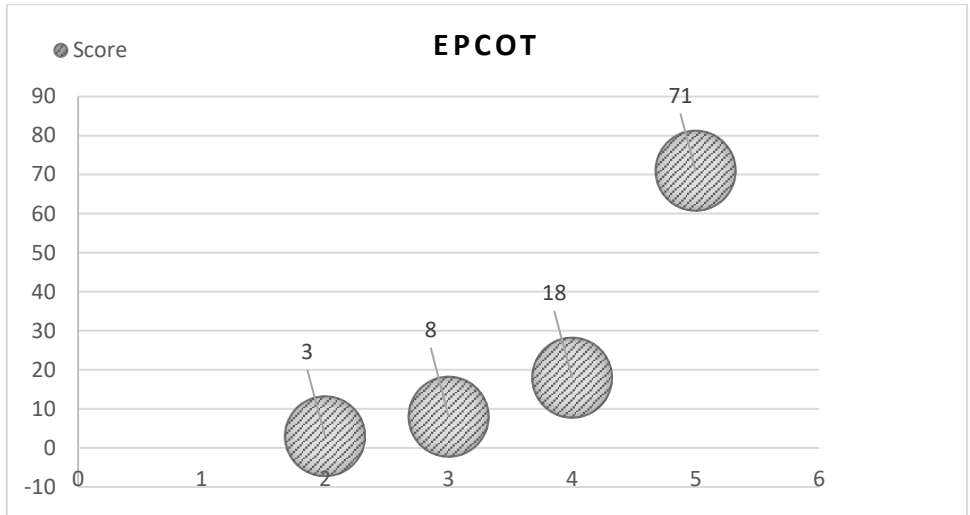
Once the ability to classify the opinions in terms of sentiment polarity and polarity confidence has been assessed, the ability to score sentiments by rating will be tested once each review from TripAdvisor also comes with an overall rating score. Average satisfaction rating of the eight theme parks is 4.41/5, with a standard deviation of 0.942. Graphic 3 shows the sentiment by ratings for each of the theme parks (the Y-axis represents the frequency number of reviews, while the X-axis indicates the corresponding score). As such, the number in each circle corresponds to the number of reviews with a certain score. Comparing figures, the theme parks

with a bigger gap between “5 score” and the remaining scale, meaning from 1 to 4, were Discovery Cove, Disney’s Animal Kingdom and Epcot. Which mean customers are highly satisfied with the experience on these theme parks. On the remaining ones, the distribution among the 5 stars scale, was in general, distributed between 3, 4 and 5 score without many discrepancies.

Furthermore, if it is analysed the 3 to 4 star rating separately and compared with the result of sentiment polarity, it is found that there is a higher number of reviews with a negative or even neutral sentiment, than a positive sentiment behind that. This indicates that although a three-star rating is defined as a neutral rating, many people consider three-star rating as negative in their text of a review. It seems that review content is a better indicator of the customer sentiment than the coarse star rating. Previous studies show that most businesses strive for a perfect rating, however, perfect ratings are overrated. Maslowska, Malthouse, and Bernritter (2016) analysed e-commerce data and found that people were more likely to buy products with a moderately high rating (4 to 4.5 stars) than a very high rating (4.5 to 5 stars). This is because imperfect ratings seem authentic. When customers see a perfect rating, they become suspicious of fake reviews.







**GRAPHIC 3: SCORE RATING BY THEME PARK**



#### 4.4 Attributes Analysis

Words associations can help designing a customer profile and is one more feature facilitating the analysis of customer reviews. In this study, it is selected from the group of positive reviews, with polarity confidence of 1, the first 40 reviews, in order to work in their content with the objective to track the words that customers used with more frequency when explaining what they liked the most in their theme park experience. Both table 10 and figure 5, shows the list of the 20 visitor experience-related words that explained satisfaction ratings. Words like “experience”, “education” “great”, “cool” and “lovely” are the main attributes mentioned by customers, particularly in measuring the main reasons for customer satisfaction in what concerns to the theme park activities. There is also a relevant interest in services related with “water”, “dolphins”, “swim” and “rides”. As Niu, Park and Kirilenko (2019) found also on their study that words represent aspects related to the theme park visitor experience, including sentiment such as “great”, “amazing”, “love”, “good”, “awesome”; experience and service such as “time”, “family”, “visit”, and “experience”.

<i>Number</i>	<i>Term</i>	<i>Frequency</i>
1	great	40
2	experience	36
3	cool	27
4	education	24
5	lovely	19
6	love	18
7	amazing	17
8	water	14
9	dolphin	14
10	rides	14
11	swim	13
12	show	12
13	first	12
14	time	12
15	park	8
16	awesome	8
17	good	6
18	best	6
19	fun	6
20	recommend	5

**TABLE 10: POSITIVE ATTRIBUTES DISCOVERED AND RESPECTIVE FREQUENCY**



Despite results focusing on several different attributes that can be characterized by a specific sentiment, the same results conceal certain limitations. One of them consists of the fact that the given results do not show an emphasis on attribute in specific but just a feeling, for example word number one, three, five, six and seven, which are respectively, great, cool, lovely, love and amazing. According to Hudson (2006) experiences are a key innovation in today’s business across a variety of industries from health care to automobiles. Moreover, a recent study found that the number one ranked ‘most memorable experience’ for customers is in connection with vacation (Hudson, 2006, p. 138). The demand for leisure and tourism products which are able to engage customers’ senses, to stimulate minds, to deliver unique moments or to interact with customers in an emotional, physical, spiritual or intellectual setting seems increasing.

On the contrary, in order to see also the pattern regarding the negative word cloud, it is selected from the group of negative reviews with polarity confidence approximate from 1, the first 40 reviews content in order to select the main words used with more frequency. The global results, presented in both table 11 and figure 6, with a total of 15 terms, show that the words “price”, “time” and “crowded” are clearly the main attributes mentioned by customers, particularly in measuring the main reasons for customer dissatisfaction in what concerns to the theme park activities. In fact, according with Niu, Park and Kirilenko (2019) reveal also on their study that words such as “waiting time” and “high price” have significant influences on guest experience.

<i>Number</i>	<i>Term</i>	<i>Frequency</i>
1	price	22
2	time	20
3	crowded	16
4	Disney	16
5	Universal	14
6	waiting	10
7	parking	8
8	closed	8
9	money	6
10	show	6
11	food	6
12	disappointed	6
13	expensive	5
14	ticket	4
15	hours	4

**TABLE 11: NEGATIVE ATTRIBUTES DISCOVERED AND RESPECTIVE FREQUENCY**

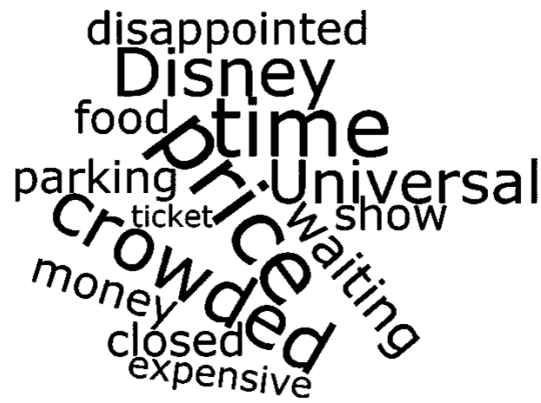


FIGURE 5: WORLD CLOUD FOR NEGATIVE THEME PARK EXPERIENCE DOMAIN

In what concerns the service experience, it is seen that the word “Disney” and “Universal” represent the theme parks associated with lower levels of satisfaction. In 2017, Disney attractions were the first most attended theme parks, hosted around 150 014 000 visitors and Universal hosted an estimated 49 458 000 visitors, ranking as the third most attended theme park in the United States, expected to be almost full of people every day (TEA/AECOM, 2018). One of the words with a higher frequency is “crowded. As consequence of the high levels of density is the waiting time and the long queues to go to any roller coast that could be also a factor that compromise the overall experience. To this concern, Disney has recognized the importance of implementing customer relationship management technologies to assist in allowing guests to customize their experience based on their needs and interests, being involved in the planning of their own experience. In order to face this, Disney creates MyMagic+. It works as a vacation planning program that lets guests customize their vacation. Guests use this program during and after booking their Disney World vacation. According with Fast Company Report (2014), after just 4 months from its introduction, “FastPass + had 50% more participation from guests than the paper ticket FastPass, and wait times for park entry had decreased by 25%”. The first attribute with the most frequency mentioned was “price”. Recent media reports highlight on how some theme parks have consistently raised prices above the rate of inflation, thus making it less accessible to the average family (Torres et. al., 2019). In a study from Torres et al. (2019) they state that during the ten-year 2007–2017 period, the average price of an adult ticket for Disneyland and Universal Studios Hollywood increased by 67% and 88%, respectively. Tickets to theme parks in Orlando, Florida have increased by an average of 50–64%.

## **5 Conclusion**

### **5.1 Contributions**

In this study, a sentiment analysis from 800 customers' reviews was conducted, as well as the identification of the main attributes that customers value within U.S theme park experience. The proposed method is applied to the most reviewed theme parks where the attributes found expose how guests' satisfaction is being perceived. It provides a comparable sentiment analysis process applied to different theme parks, which induces the creation of intelligent customer databases providing fundamental contributions to marketing strategy. This, aligned with the acknowledgment of their strengths and weaknesses lead to an increase of competitive advantages. The value of this study underlie on using structured and unstructured data from TripAdvisor user generated content, to understand customer perceptions and feelings of different theme parks, in a way that was not available through traditional survey studies. Hence, it has an impactful contribution to literature in several ways.

From a practical point of view, this study stresses that core sentiments expressed through online reviews are mainly positive in what concerns the theme park experience. Has also shown that satisfaction and sentiment differ between Universal Studios, Disney World, and Sea World. The three theme parks with highest positive sentiment, on average, were Disney's Animal Kingdom, followed Universal's Islands of Adventures, after Discovery Cove and finally SeaWorld. It was also found an agreement in sentiment by score rating for both last mentioned parks with the greater number of reviews with the highest score (5). Furthermore, drivers of customer satisfaction are associated with sentiments such as "fun", "great", "lovely" and "amazing", and experience and services such as "rides", "water", "dolphins", "experience" and "show". On the contrary, the main attributes mentioned by customers, particularly in measuring the main reasons for customer dissatisfaction, are the waiting time, the price and the density of people, besides both Disney and Universal were mentioned on reviews with a negative sentiment. As such, the contribution of this study provides a solid background support beyond a simple traditional method, thus strengthening managerial decisions to further improve the guest experiences.

The theoretical contribution, suggests that drivers of customer satisfaction in the context of theme parks are associated with attributes such as "experience", "great", "education", "fun", "rides" and "water". On the contrary, the attributes such as "price", "crowded", "time" and "waiting" are clearly the main attributes mentioned by customers, for customer dissatisfaction

in what concerns to the theme park activities. Like it was already mentioned before, it is difficult not to find a crowded theme park since this kind of parks provide multi-focus resources like attractions and rides, shows, restaurants, retail stores, and more. Guests make decisions regarding their visit's journey and the time they allocate for each resource according to their personal preferences, which sometimes can be difficult to control. Early studies regarding the factors influencing the selection of a particular U.S. theme park identified crowds as an influencing variable, but not the most significant (Torres et. al., 2019).

Prior research on WOM communications revealed that customers typically express positive content as a result of their product involvement, self enhancement, or a desire to help the company. Stephen and Galak's (2012) analysis of data showed that online WOM generated by customers in an online forum had a stronger long-run positive impact on sales than traditional earned media did, even though the traditional earned media likely reached more people. Another important study was from Shriver, Nair and Hofstetter (2013) that examined the dynamics of User Generated Content (UGC) production and came to the conclusion that people who posted information for others in an online community benefited by attracting more social ties and that this, not only, push them to generate more content but also raises overall browsing activity on the internet. In this regard, offering advices about a delightful theme park experience helps readers know what to expect and how to best plan their visit. In fact, customer expectations can have a positive or negative impact on customer satisfaction. While meeting and exceeding expectations is very important, managing expectations has proven to be a more comprehensive approach to deliver a satisfying experience.

## **5.2 Limitations**

Nevertheless, the present study comprises several limitations and the findings should be interpreted with caution.

First, the attribute analysis is only considering a sample of 40 reviews out of 800 in total, which represents only a small group of customers' perceptions of theme parks.

Furthermore, there are many words that can have different meanings, depending on their context and usage, meaning that the same word can be used as a positive or a negative sentiment.

Additionally, sentiment classification and guest satisfaction could be considerably different in another cultural context while in this study the patterns analysed consider theme parks in U.S and most of the reviewers are from people located in United States of America.

In spite of their existence, these potential limitations do not reduce the internal validity of data and thus do not harm the purpose of demonstrating the power of sentiment analysis techniques in the field of theme park experience.

### **5.3 Future Research**

Companies are constantly seeking new ways to keep up with the changing expectations of customers. In the hospitality industry customizing guest service to each individual is a step that can be taken to create lasting relationships. Not only quality customer service plays a significant role in a company's success but also contributes to innovative policies to keep guests engaged.

In general, scholars and practitioners have come to agreement that the customer experience as a whole is a multidimensional construct that involves cognitive, emotional, behavioural, sensorial, and social responses to a firm's offerings during the customer's entire purchase journey. (Schmitt, 1999).

Future research may consider applying a fully automated system approach, as this proposal contains both computer programs and manual effort. The ideal option should combine both in a single system as a technological development. Companies use marketing and service tactics to draw customers in and make them want more. Businesses must continually adapt and get to know the needs of the customers in order to provide them with both a quality product and service worth coming back for. One important aspect companies must not forget stands for the fact that improving the customer experience takes commitment across all levels of the organization. Finally, innovation corresponds to the ability of one's creativity as well as strive constantly to adapt, fulfil and exceed not only customers' but also industry's needs. Overall, taking into consideration the new technological systems applied to management, this research can be used as an example for the development of a methodology that can lead companies through a distinctive marketing strategy, characterized by customer focus and competitive advantage. It is understood that visitor experiences may vary from one guest to another, from park's geographical location, demographic patterns, technological advancement and government regulations, yet the findings are useful for theme park decision makers to support marketing strategies.

The literature shows that online reviews genuinely reflect customer opinions and can help theme parks improve their products and services. As the theme park industry becomes more service-oriented, understanding the customer experience concept proves to be the central

concern and that can be achieved through a better usage of these online reviews that transparently demonstrate what customer holds in high regard.

## 6 References

Ali, F., Kim, W. G., Li, J., & Jeon, H. (2017). Make it delightful: Customers' experience, satisfaction, and loyalty in Malaysian theme parks. *Journal of Destination Marketing & Management*. (in press), 7, 1–11.

Calheiros C. A., Moro S., & Rita P. (2017). Sentiment Classification of Customer-Generated Online Reviews Using Topic Modelling. *Journal of Hospitality Marketing & Management*, 26 (7), 675-693.

Chatterjee, P. (2001). Online reviews: Do customers use them? *Advances in Customer Research*, 28, 129–133.

Chen, Y., & Xie, J. (2004). Online customer review: A new element of marketing communications mix. *Working Paper*, University of Arizona.

Cheng, Q., Guo, J., & Ling, S. (2016). Fuzzy importance-performance analysis of visitor satisfaction for theme park: The case of fantawild adventure in Taiwan, China. *Current Issues in Tourism*, 19(9), 895–912.

Fletcher, D., & Fletcher, H. (2003). Manageable Predictors of Park Visitor Satisfaction: Maintenance and Personnel. *Journal of Park and Recreation Administration*, 21 (1), 21-37.

Fotiadis, A. K. (2016). Modifying and applying time and cost blocks: The case of E-Da theme park, Kaohsiung, Taiwan. *Tourism Management*, 5, 434–442.

Gambetti, R. C., Graffigna, G., & Biraghi, S. 2012. The Grounded Theory Approach to Consumer-brand Engagement: The Practitioner's Standpoint. *International Journal of Market Research*, 54(5), 659-687.

Gan, Q., Ferns, H. B., Yu, Y., & Jin, L. (2017). A Text Mining and Multidimensional Sentiment Analysis of Online Restaurant Reviews. *Journal of Quality Assurance in Hospitality & Tourism*, 18 (4), 465-492.

Geissler, G. L., & Rucks, C. T. (2011). The overall theme park experience: A visitor satisfaction tracking study. *Journal of Vacation Marketing*, 17 (2), 127–138.

Gupta, S., Pansari, A., & Kumar, V. (2018). Global Customer Engagement. *Journal of International Marketing*, 26 (1), 4:29.

Homburg, C, Jozic, D., & Kuehnl, C. (2015). Customer Experience Management: Toward Implementing an Evolving Marketing Concept. *Journal of the Academy of Marketing Science*.

Hudson S. (2006). Creating memorable alpine winter experiences. *Erlebnisinszenierung im Tourismus*. 137-151.

Husain, S., Ghufuran, A., & Chaubey, D. S. (2016). Relevance of social media in marketing and advertising. *Splint International Journal of Professionals*, III (7), 21-28.



- International Association of Amusement Parks and Attractions (IAAPA) (2019) U.S. amusement park attendance & revenue history. Available at: <http://www.iaapa.org>
- Kemperman, M. A. D. A., Borgers, J. W. A., Oppewal, H., & Timmermans, P. J. H. (2000). Customer Choice of Theme Parks: A Conjoint Choice Model of Seasonality Effects and Variety Seeking Behavior, *Leisure Sciences*, 22 (1), 1-18.
- Kotler, P., & Armstrong, G. (2015). Principles of Marketing. Pearson Education, 14<sup>th</sup> Edition.
- Li, N., & Wu, D. D. (2010). Using text mining and sentiment analysis for online forums hotspot detection and forecast. *Decision Support Systems*, 48 (2), 354–368.
- Marketing Science Institute. 2010. Available at: <https://www.msi.org/>
- Maslowska, E., Malthouse, E. C. & Bernritter, S. F. (2016). Too good to be true: the role of online reviews' features in probability to buy. *International Journal of Advertising*. 142-163.
- Meyer, C. & Schwager, A. (2007). Understanding Customer Experience. *Harvard Business Review*, 85 (2), 117–26.
- Milman, A. (2001). The future of the theme park and attraction industry: a management perspective. *Journal of Travel Research*, 40(2), 139-147.
- Milman, A. (2009). Evaluating the guest experience at theme parks: An empirical investigation of key attributes. *International Journal of Tourism Research*, 11 (4), 373–387.
- Milman, A., Li, X., Wang, Y., & Yu, Q. (2012). Examining the guest experience in themed amusement parks: Preliminary evidence from China. *Journal of Vacation Marketing*, 18 (4), 313–325.
- Molinillo, S., Ximénez-de-Sandoval, L. J., Fernández-Morales, A., & Coca-Stefaniak, A. (2016). Hotel Assessment through Social Media: The case of TripAdvisor. *Tourism & Management Studies*, 12(1), 15-24
- Mollen, A., & Wilson, H. (2010). Engagement, telepresence and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives. *Journal of Business Research*, 63 (9,10), 919-925.
- Niu, Y., Park, H., & Kirilenko, A. (2019), Theme Park Visitor Experience and Satisfaction: A Case of TripAdvisor Reviews of Three Theme Parks in Orlando. *Travel and Tourism Research Association: Advancing Tourism Research Globally*, 11.
- Pan, H., Bahja, F., & Cobanoglu, C. (2018) Analysis of U.S. theme park selection and international implications. *Journal of Transnational Management*, 23 (1), 22-38.
- Park, Do-H., Lee, J., & Han, I. (2007). The Effect of On-Line Customer Reviews on Customer Purchasing Intention: The Moderating Role of Involvement. *International Journal of Electronic Commerce*, 11 (4), 125-148.
- Pine, B. J., & Gilmore, J. H. (1998). The experience economy: Work is theater and every business is a stage. Boston, MA: *Harvard Business School Press*.

Sandes, S. F. & Torres U. A., (2013). Electronic Word-of-Mouth Impacts on Consumer Behavior: Exploratory and Experimental Studies. *Journal of International Consumer Marketing*, 25, 181–197.

Schmitt, B. (1999). *Experiential marketing: How to get customers to sense, feel, think, act, and relate to your company and brands*. New York, NY: Free Press.

Schmitt, B. (2003). *Customer experience management: A revolutionary approach to connecting with your customers*. New York, NY: Wiley.

Serrano-Guerrero, J., Olivas, A. J., Romero, P. F., & Herrera-Viedma, E. (2015) Sentiment analysis: A review and comparative analysis of web services. *Information Sciences* 311, 18–38.

Shriver, S. K., Nair, H. S., & Hofstetter, R. (2013). Social Ties and User-Generated Content: Evidence from an Online Social Network. *Management Science*. 59 (6).

Spinks, W., Lawley, M., & Richins, H. (2005). Satisfaction with Sunshine Coast tourist attractions: the influence of individual visitor characteristics. *Journal of Tourism Studies*. 16 (1).

Stephen, A. T., & Galak, J. (2012). The Effects of Traditional and Social Earned Media on Sales: A Study of a Microlending Marketplace. *Journal of Marketing Research*. 49 (5), 624–639.

Sundararajan, A., Provost, F., Oestreicher-Singer, G., & Aral, S. (2013). Research Commentary—Information in Digital, Economic, and Social Networks. *Information Systems Research*. 24 (4).

Themed Entertainment Association (TEA/AECOM). 2017. *Theme Index and Museum Index: The Global Attractions Attendance Report*.

Theme Park Critic - The Premier Online Theme Parks Guide. 2018. Available at:<http://www.themeparkcritic.com/>

Theme Park Insider. 2018. Available at: <https://www.themeparkinsider.com/>

Torres, N. E., Milman, A., & Park, S. (2019). Customer delight and outrage in theme parks: A roller coaster of emotions. *International Journal of Hospitality & Tourism Administration*.

Van Doorn J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P. & Verhoef, P. C. (2010). Customer Engagement Behavior: Theoretical Foundations and Research Directions. *Journal of Service Research*, 13 (3), 253–266.

Vivek, D. S., Beatty, E. S., & Morgan, M. R. (2012). Customer Engagement: Exploring Customer Relationships Beyond Purchase. *Journal of Marketing Theory and Practice*, 20 (2), 122–146.

Xiang, Z., Schwartz, Z., Gerdes Jr, J. H., & Uysal, M. (2015). What can big data and text analytics tell us about hotel guest experience and satisfaction? *International Journal of Hospitality Management*, 44, 120–130.

Ye, Q., Law, R., Gu, B., & Chen, W. (2011). The influence of user-generated content on traveler behavior: An empirical investigation on the effects of e-word-of-mouth to hotel online bookings. *Computers in Human Behavior*, 27 (2), 634–639.

Yoo, H. K., & Gretzel, U. (2008). Use and Impact of Online Travel Reviews. *Information and Communication Technologies in Tourism*, 35-46.