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A study of Unilever's online consumer-brand engagement in Portugal.

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Abstract in Portuguese

O consumo de redes sociais online está a crescer em todo o mundo. Em 2020, o Facebook registou um record de 2,5 mil milhões de utilizadores mensais ativos. Os consumidores estão a aumentar a sua presença online em todo o mundo, especialmente em redes sociais como o Facebook. Algumas marcas têm aproveitado o potencial destas plataformas, tentando entender como conectar-se com seus consumidores online, como medir esses esforços e como melhorar o seu envolvimento com os consumidores.

Este projeto de empresa é elaborado no âmbito da Unilever, com o objetivo de analisar o envolvimento online das marcas Unilever com os seus consumidores. Neste projeto é avaliado e comparado o desempenho do envolvimento das marcas Unilever na rede social Facebook, analisando que marcas e tópicos geram um envolvimento mais positivo ou negativo e analisando quais são os padrões na comunicação das marcas que levam a sentimentos mais positivos por parte dos consumidores.

Para testar as hipóteses criadas, é feito um Text Mining e uma Análise de Sentimentos a mais de 7000 interações entre as marcas e os consumidores no Facebook, cruzando esses dados com os padrões de comunicação e avaliando quais deles levam a sentimentos mais positivos. Os resultados mostram que os posts que comunicam o Propósito das marcas, Inovações de produto e um Passatempo geram sentimentos mais positivos dos consumidores. No final, é desenhado um plano para integrar uma análise de sentimentos na estratégia das marcas, com base nos resultados obtidos neste projeto.

Palavras-chave: *online consumer-brand engagement, text mining, análise de sentimentos, árvore de decisão, Unilever.*

Abstract in English

The consumption of online social media is growing around the world. In 2020, Facebook registered a record of 2.5 billion monthly active users. Consumers all around the world are increasing their online presence, especially in social networks as Facebook, where they communicate and look for advice from other consumers in ways that firms are finding harder to control or predict. Some brands have taken advantage of the potential of these platforms, trying to understand how to connect with their consumers online, how to measure those efforts and how to improve its consumer-brand engagement.

This in-company project is elaborated within the scope of Unilever. Its purpose is to analyze the company's Brands consumer-brand engagement. In this project, we evaluate and compare Unilever Brands' engagement performance in Facebook, by understanding which brands and topics are generating more positive or negative engagement and by analyzing which communication patterns lead to more positive sentiments from consumers.

To test the hypothesis created, a Text Mining and Sentiment Analysis were performed to over 7000 interactions between the brands and its consumers on Facebook, cross-checking this data with the communication patterns and assessing which ones lead to a higher sentiment score. Results show that Facebook Brand Posts communicating the Brands' Purpose, a Product Innovation, and a Game/Challenge lead to more positive sentiments from the consumers. A plan to integrate a Sentiment Score Analysis in the Brands' strategy is included, based on the results gathered from this project.

Keywords: online consumer-brand engagement, text mining, sentiment analysis, decision tree, Unilever.

Table of Contents

Acknowledgements ii

Abstract in Portuguese..... iv

Abstract in English v

Acronyms xii

1 Introduction 1

2 Literature Review 5

 2.1 Consumer-Brand Engagement..... 5

 2.2 Online Consumer-Brand Engagement 7

 2.3 Unilever and Consumer-brand engagement 12

 2.4 Text Mining and Sentiment Analysis 16

3 Methodology..... 19

 3.1 CRISP-DM Overview..... 19

 3.2 Business Understanding..... 20

 3.3 Data Understanding 22

 3.4 Data Preparation 23

 3.4.1 Stage 1 – Text Mining and Sentiment Analysis of total consumer interactions 24

 3.4.2 Stage 2 – Which communication patterns lead to more positive sentiment score? Focusing on Consumer comments on Brands’ Posts 38

 3.5 Modeling..... 44

 3.6 Evaluation 47

 3.7 Deployment..... 51

4 Conclusion..... 53

 4.1 Theoretical and managerial contributions..... 53

 4.2 Limitations and future research 54

5 Bibliography 56

6 Annexes 62

List of Tables

Table 1. Unilever brands' Purpose definition	13
Table 2. Brand posts and interactions extracted on the Facebook pages analyzed.	22
Table 3. Sentiment Analysis: Sentiments 5-level scale classification.....	24
Table 4. Sentiment Analysis: Sentiment score per Business Unit.....	26
Table 5. Number of Consumer interactions per each Sentiment level per Brand	29
Table 6. Average Sentiment Score per Brand	30
Table 7. Topics frequency and positive polarity: Beauty and Personal Care.....	32
Table 8. Topics with negative polarity: Beauty and Personal Care.....	33
Table 9. Topics frequency and positive polarity: Home Care.....	34
Table 10. Topics with negative polarity: Home Care.....	35
Table 11. Topics frequency and positive polarity: Foods & Refreshment.....	36
Table 12. Topics with negative polarity: Foods & Refreshment.....	37
Table 13. Number of brand posts containing the identified communication patterns....	39
Table 14. Comments on Brands' posts Sentiment analysis descriptive data	43
Table 15. Most relevant nodes to positively influence Sentiment Value	49
Table 16. Factorial ANOVA regarding communication patterns	50

List of Figures

Figure 1. Project Framework	15
Figure 2. CRISP-DM methodology	19
Figure 3. Sentiment Analysis: Total interactions per each Sentiment level	25
Figure 4. Percentage of interactions of each Sentiment level, excluding neutral sentiment comments: Beauty & Personal Care vs Average Unilever	27
Figure 5. Percentage of interactions of each Sentiment level, excluding neutral sentiment comments: Home Care vs Average Unilever.....	27
Figure 6. Percentage of interactions of each Sentiment level, excluding neutral sentiment comments: Foods & Refreshment vs Average Unilever.....	28
Figure 7. Example of a Brand post communicating Purpose and having a CTA.....	40
Figure 8. Example of a brand post communicating a product innovation.....	41
Figure 9. Example of a brand post communicating a challenge.....	42
Figure 10. SPSS Modeler process flow	44
Figure 11. Target and Input Variables analyzed	45
Figure 12. SPSS Modeler Auto Classifier: Models to use ranked by its Accuracy	46
Figure 13. Independent variable importance in predicting Sentiment Score	47
Figure 14. Decision Tree: what patterns lead to higher sentiment scores?	48

List of Annexes

Annex 1. Facebook Posts communication patterns classification.....	62
Annex 2. Facebook Posts Sentiment analysis descriptive data per post	72

Acronyms

CBE: Consumer-Brand Engagement

CPG: Consumer Packaged Goods

CTA: Call-to-Action

E-WOM: Electronic Word of Mouth

FMCG: Fast-Moving Consumer Goods

KPI: Key Performance Indicator

NLP: Natural Language Processing

NPD: New Product Development

SA: Sentiment Analysis

TM: Text Mining

UGC: User-Generated Content

1 Introduction

In its most recent book, “Marketing 4.0”, Philip Kotler presents online brand advocacy as one of the most important challenges for marketers in the digital era of marketing (Kotler, 2017). The ability to create a conversation with the consumers, and the communities where they look for advice during the purchase process is and will continue to be one of the main challenges for brands. The author identifies the Fast-Moving Consumer Goods (FMCG) industry as one of the key industries where this is of the utmost relevance, since the FMCG sector is typically characterized by a low level of brand advocacy and consumer-brand engagement (CBE).

Unilever is one of the largest FMCG companies in the world, with a market value estimated in 155.8 billion US dollars (Statista, 2018), and has in its portfolio some of the most famous brands in the consumer-packaged goods market, like Dove, AXE, Vaseline, Skip (DiG), Comfort, Hellman's or Lipton, among many others. In Portugal, Unilever brands have been present in the market since 1949 through a joint-venture partnership between Unilever and Sociedade Francisco Manuel dos Santos, named Unilever FIMA.

The consumption of online social media is growing around the world. As of January 2020, Facebook registered a record of 2.5 billion monthly active users (Statista, 2020). Consumers are increasing their online presence, especially in social networks, where they communicate and look for advice from other consumers in ways that firms are finding harder to control or predict. The discussion between consumers about brands, products or services they used, or look forward to using, takes the form of electronic word of mouth (eWOM), which is growing across platforms and consumer age groups, therefore becoming an important matter for marketing and business to consider (Pauwels, Aksehirli, & Lackman, 2016).

This project is elaborated within the scope of Unilever, with the intent to analyze its brands' consumer-brand engagement and which online communication patterns lead to more positive engagement. It follows the recent stream of research in online consumer-brand engagement, which has seen increasing interest from scholars and professionals. Unilever is one of the companies with the largest marketing investments in the world and the company with the highest advertising investment in Portugal during the year of 2017 (Marketeer, 2018). Considering this status, Unilever has the tools and expertise to further

develop its knowledge about its brands' consumer engagement performance, going beyond what is currently being done in this area at the firm. A multiple-segment market leader like Unilever should be able to understand how its consumers perceive its brands. Understanding how the Unilever brands are engaging with their consumers, considering engagement volume and valence, is relevant for the company not just to understand which brands are over or underperforming, but also to understand what the consumers are saying about the brands, what topics are more commonly associated with more positive or negative sentiments, and which marketing efforts are leading to more positive feedback from consumers.

With this project, Unilever will be able to evaluate and compare its brands' engagement performance in the Facebook social network; understand which brands are generating more positive or negative engagement and, most of all, what patterns of the brands' communication lead to more positive online consumer-brand engagement. We will also be able to see which categories (Foods & Refreshment, Home Care or Personal Care) are generating more positive or negative comments in their pages, meanwhile retrieving the words and topics commonly used in a negative or positive way. Among other conclusions, this study will enable the firm to understand if the marketing communications are delivering an image of the brand in accordance to what is expected, to gather insights on patterns that lead to more positive feedback from their consumers, and to support to the management decision on addressing the negative perceptions that consumers may have about the brands. The conclusions resulting from this study will help Unilever to become closer with its consumers, giving the firm the tools to adapt its digital marketing strategy and increase consumer-brand engagement and brand advocacy around its brands. The main question addressed in this project is the following:

Which communication patterns lead to more positive sentiments in Unilever Brands' online consumer-brand engagement?

The main objectives of this project are the following:

1. *Understand which communication patterns deliver more positive sentiment scores.* To find which communication patterns lead to more positive sentiments from consumers online, we will focus our analysis on the case of the Unilever brands in Portugal. We will use data retrieved from the Facebook accounts of a list of Unilever brands in Portugal and identify communication patterns present in these Facebook posts. We will then test which

patterns correlate with more positive, or negative sentiments underlying the comments made by consumers in these Facebook posts, by performing a Sentiment Analysis on the Facebook comments and associating a sentiment score to each comment.

2. *Understand which Unilever Business Units and Brands are delivering a more positive or negatively valenced consumer-brand engagement behavior.* The Sentiment Analysis performed will associate a sentiment score to each consumer comment, and consequently to each Brand Facebook post, allowing Unilever to understand which Brands and Business Units are receiving more positive or negative sentiments from the consumers associated to its communications.

3. *Find which topics are mentioned the most by consumers per each brand and which topics are associated with more positive or negative sentiments.* By performing a text mining analysis, Unilever will be able to understand which are the topics most frequently discussed by consumers on the Brands' pages, at the same time understanding which topics have a higher or lower sentiment score by performing the Sentiment Analysis.

4. *Contribute with a strategy to be implemented by Unilever to track the brands' Sentiment Score and to serve as support to managerial decision making to improve consumer's engagement and sentiment towards the brands.* As far as the authors knowledge goes, the results from this study were not visible for the company until now since a consumer-brand engagement strategy was not implemented up until this day. At the end of this study, we will propose an integrated approach to the implementation of a Sentiment Analysis Strategy in Unilever's marketing ways of working.

This project will also be of the utmost relevance to the marketing field, especially for the FMCG industry, being the first study, as far as the authors know, that performed a Text Mining and Sentiment Analysis to a massive amount of data from different social media brands of an FMCG corporation with such a different range of brands under study. This study is especially unique given the fact that the company under study, Unilever, competes with brands in multiple categories within the FMCG industry, from food products, to beverages, to beauty and personal care products or home cleaning detergents.

In the following section, we will go through a "Literature Review" on Consumer-brand engagement, on how companies have used online channels to develop consumer-brand engagement, with a special focus on FMCG companies, and on the text mining methods we will use for this study. In the "Methodology" section we will outline the CRISP-DM

framework used for the preparation and analysis of the data collected. In the “Deployment” section we will define the system that Unilever should implement to track its consumer-brand engagement performance. In “Conclusions”, we will outline the main theoretical and managerial contributions of this study, as well as its limitations with some proposals for future research.

2 Literature Review

This literature review was conducted through an online search in the most recognized journal databases, as Scopus, Web of Science, B-on and Taylor and Francis. We selected main keywords to focus our research, namely: “Brand Engagement”, “Online engagement”, “Consumer Brand Engagement”, “Fast-Moving Consumer Goods”, “Consumer Packaged Goods”, “Text Mining” and “Sentiment Analysis”. The most relevant papers were selected, and to assure the best quality sources for this study, we filtered the papers used considering only the ones peer-reviewed and published in recognized scientific journals. To achieve this, we used as a reference the Academic Journal Guide 2018, a publishing that rates the best scientific journals with a rating from 1 to 4+, being 4+ the highest possible rating. For this study, we only considered papers published in journals with a rating equal or higher than 2. The following literature review only considers the papers resulting from this process.

2.1 Consumer-Brand Engagement

Online brand engagement is a field of study in increasing growth, one that gained special traction in recent years. Nevertheless, engagement and the relationship between a brand and the consumer have been a topic of discussion between scholars for decades (Fournier, 1998).

For the past ten years, the importance of a brand to engage with its consumer gained special relevance in the academic literature and marketing environment. We can define Consumer-brand engagement as the “consumer's positively valenced brand-related cognitive, emotional and behavioral activity during or related to focal consumer/brand interactions” (Hollebeek & Chen, 2014). It is currently of general agreement that consumer-brand engagement (CBE) has three main dimensions: cognitive, emotional and behavioral (Hollebeek, Glynn, & Brodie, 2014). The cognitive dimension of CBE relates to the “thought processing and elaboration in a particular consumer/brand interaction” (Hollebeek et al., 2014: 154), and the level of a consumer's cognitive engagement with a brand is measured by its Immersion. The emotional dimension of CBE refers to “a consumer's degree of positive brand-related affect in a particular consumer/brand

interaction” (Hollebeek et al., 2014: 154), and the level of a consumer's emotional engagement with a brand is measured by its Passion. The behavioral dimension of CBE refers to “a consumer's level of energy, effort and time spent on a brand in a particular consumer/brand interaction” (Hollebeek et al., 2014: 154), and the level of a consumer's emotional engagement with a brand is measured by its Activation. All three dimensions are correlated with consumer-brand engagement and have been the basis for some of the most relevant studies in this field (Baldus, Voorhees, & Calantone, 2015; Dessart, Veloutsou, & Morgan-Thomas, 2016; Harrigan, Evers, Miles, & Daly, 2017; Lemon & Verhoef, 2016). In this project, we will mainly focus on the behavioral dimension of CBE since we want to understand which patterns in the brands' communication drive more positively valenced activation by the consumers.

For this study, we consider “engagement” as the concept that describes the interactions between individuals and brands. We follow Brodie et al. (2011) distinction between “engagement” and “involvement”, since the latter does not require the interactions between the two parties, i.e. the consumer and the brand.

The relationship between brands and consumers has been appointed by business professionals as a possible form of competitive advantage and company growth (Voyles, 2007). Consumer-brand engagement has not only proven to be seen as a possible source of competitive advantage, but also a proven way to significantly affect how the consumer perceives a brand and its intent to use that brand or product (Hollebeek & Chen, 2014). The positive and negative effect of brand engagement in a consumer's perspective about a brand or product has been extensively studied. Higgins and Scholer (2009) have shown how engagement can influence the consumer's perceived value of an object or brand. The study demonstrated how consumers that have a positive engagement with an object (i.e. a brand) will increase its perceived value of that object, and the ones that have a negative engagement experience will decrease the perceived value of said object. This proves the need of marketers to evaluate their brand's Consumer Brand Engagement, giving special attention to the online environment, where CBE is more commonly evaluated.

2.2 Online Consumer-Brand Engagement

Online social networks are giving managers and marketers the chance to engage and communicate with their consumers. Some brands have taken advantage of the potential of these platforms, other brands have had problems to enter the online environment, but in recent years all of them have been trying to understand how to connect with their consumers online, how to measure those efforts and how to improve the consumer-brand relationship (Dessart, Veloutsou, & Morgan-Thomas, 2016).

As of January 2020, Facebook was the most popular social network website in the world, with around 2,5 billion monthly active users, positioning itself ahead of Youtube (2 billion), Whatsapp (1.6 billion) and Facebook Messenger (1.3 billion) (Statista, 2020). The number of monthly active Facebook users is only expected to grow in the following years, reaching 4.81 billion individuals in 2022. Facebook has been a source of other studies in marketing and consumer engagement, due to its popularity, access to data, and the multiple possible interactions between a brand and the consumer and the consumers with each other (Dessart et al., 2016). Therefore, Facebook represents a strategic platform for marketers to test and activate their marketing efforts online.

However, the mere presence on social media does not automatically represent a success for the brand. These platforms are built upon the need of consumers to interact, and this is also true for consumer-brand relationship. The success of a social media marketing strategy is contingent upon brands also engaging with the consumer, making it a two-way conversation (Colliander, Dahlén, & Modig, 2015). Through a study conducted on Twitter, these authors proved that dialoguing with the followers is a driver of positive brand attitude for brands. Consumers that dialogue with the brands feel a higher investment from said brand and perceive the brand as caring and investing towards the consumer needs. The consumer will feel more comfortable in using the brand, leading to higher purchase intent.

Hudson et al. (2016) have also proven that stronger bonds are created between a consumer and a brand when they engage online with each other, when comparing to brands and consumers that do not have this kind of interaction. For marketers, this is a sign that engaging online with the consumers can be a way to create a differentiating impact on the consumer. This authors' study also explores the topic of anthropomorphizing brands, i.e.

brands that become humanized in their actions and communications, with M&M's and Michelin being two examples of this kind of brands. Results indicate that anthropomorphizing brands have an increased ability to form a stronger online relationship with consumers.

Some brands have prompted their consumers to create content that is relevant to the brand, in an attempt to generate dialogue and engagement between the two parts (Malthouse, Calder, Kim, & Vandebosch, 2016). This kind of interactions could be translated into online challenges, quizzes or games intended to generate consumer's participation. The authors have shown how User-Generated Content (UGC) has proven to be a successful strategy to generate engagement with the brand and, subsequently, revenue to the firm, by developing the cognitive and behavioral dimensions of CBE. An example of this type of communication pattern is a challenge where fans must submit an original sentence containing the brand's name. In this type of contest, brands usually reward the winners with product offerings or other relevant gifts (as tickets to shows, for example). Unilever brands' have been using this strategy in multiple occasions, being one of the most impactful examples the case of the Unilever UK brand Peperami which prompted its fans to submit ideas for the next Brand's TV campaign, offering in return a prize of \$10,000 (The Guardian, 2009). Building upon the work of Malthouse et al. (2016), which have shown how UGC resulting from challenges/games prompted by the Brands have led to an increase in engagement and in actual purchase behavior, we will put this communication pattern up to test by evaluating its effect on Unilever Brands' sentiment score. Therefore, we developed the following hypothesis:

H1: Brand's Facebook posts that are also a challenge have a positive correlation with sentiment score.

Vries, Gensler, & Lee (2012) analyzed which communication patterns led to higher number of post likes and comments in several Facebook pages, including FMCG brands. The authors analyzed patterns such as the level of *vividness*, *interactivity*, *information*, or *entertainment*. The authors found that posts with high levels of *vividness*, which were high for posts having a video and low for posts being a static image, tended to have higher number of likes, but the correlation with number of comments was unclear. Posts with high levels of *interactivity*, which were high for posts having a challenge/game/quiz or a call-to-action and low for only having a text description or a link, had a tendency to drive higher number of likes and comments, although the correlation was not as clear as

for *vividness*. On the other hand, the authors showed that *information* and *entertainment* could not be supported as correlated with the number of post likes or comments. Surucu-balci, Balci, & Fai, (2020) work has also put to test several communication patterns with the aim to understand which patterns led to higher levels of behavior in the social media platform Twitter. Posts' containing a clear call-to-action and a higher level of *vividness* where also proven to exhibit a higher level of engagement rate. Building upon both Vries et al. (2012) and Surucu-balci et al. (2020) work, we also included the *interactivity*, *vividness*, and *information* dimensions in this project. For *interactivity*, we will identify brand posts containing a call-to-action, i.e. a reference in the post where the brand incentives the consumer to take some kind of action, from clicking a webpage link, writing a comment, liking the post, or to purchase a certain product. We elaborated the following hypothesis:

H2: Brand's Facebook posts with a call-to-action have a positive correlation with sentiment score.

Building upon Vries et al. (2012) and Surucu-balci et al. (2020) work, we will also analyze the pattern of *vividness*, by understanding if the format of the posts are positively influencing the sentiments in consumers comments made on Unilever's brand posts. We will analyze the two available formats in Facebook: video and static image. Therefore, we created the following two hypotheses:

H3a: Brand's Facebook posts in a video format have a positive correlation with sentiment score.

H3b: Brand's Facebook posts in a static image format have a positive correlation with sentiment score.

Regarding *information*, Surucu-balci et al. (2020) considered different types of informational content conveyed in each post, such as a company news, a celebratory day post, or an advertisement. Vries et al. (2012) considered a Brand post as containing information if it had any type of information regarding the brand or its product. We will build upon Vries et al. (2012) work by analyzing if Brand posts containing product information are can positively influence the sentiments in consumer comments. Unilever brands, as well as most FMCG brands, usually have in their marketing plans a dedicated budget to invest in new product developments (NPD), resulting in full funnel brand campaigns that aim to create awareness around a new product variant. A new perfume

variant of a Comfort soft cleaner would be an example of a product innovation. Considering this is a key strategy for Unilever, we will focus the pattern regarding post *information* on new product developments. We therefore considered the following hypothesis:

H4: Brand's Facebook posts communicating a product innovation have a positive correlation with sentiment score.

One of the main forms of user generated content can be reviews or comments posted by consumers in a brand's internet page. These reviews can be interpreted as electronic word-of-mouth, E-WOM, a concept that descends from the traditional WOM – Word-of-mouth. Scholars have proven that positive word-of-mouth can be a powerful force in driving recommendations and purchase intent (Keller, 2007). E-WOM can be defined as the informal communications made by consumers related to the usage or characteristics of certain goods and services, or the respective sellers, on the internet (Litvin, Goldsmith & Pan, 2008). Due to the global access to the internet, and especially to social media platforms, E-WOM has the potential to be much faster and to achieve a much higher reach than traditional word-of-mouth (*ibidem*).

Baldus et al. (2015) studied online brand communities and tried to understand what motivates participation in these communities. An example of an online brand community could be a brand's Facebook page, or a brand's dedicated online forum. The authors introduced an online brand community engagement scale, divided by 11 dimensions of engagement that predict the consumer's intention to participate in an online brand community. The dimensions were diverse and ranged from the consumer's capacity to have influence in the brand to receiving validation from the community. The results of this study showed that what motivates consumers the most to participate in online brand communities is the ability to influence the brand and to receive hedonic rewards. Baldus et al. (2015) have shown how consumers that perceive to have an active voice in the brand's development should therefore be more engaged with the brand. On the other hand, "up-to-date information" and "seeking assistance" proved to negatively affect the consumers participation. This indicates that consumers that are driven by seeking information only log-in to get the answer to their question and tend to avoid further engagement, translating to a more opportunistic relationship where the consumer is only

looking for a specific value from the brand, and not really looking to further develop any engagement.

Online brand engagement has also proven to be a source of brand trust, commitment and loyalty (Dessart, 2015). The authors have shown how the consumers that were more engaged demonstrated a higher brand trust and commitment to the brand, which subsequently resulted in brand loyalty. Leckie, Nyadzayo, & Johnson (2016) tested if Hollebeek et al. (2014) three consumer-brand engagement dimensions had a positive correlation with brand loyalty. The authors concluded that both emotional and behavioural dimensions have a positive effect on brand loyalty, however, surprisingly the cognitive dimension had a negative impact on brand loyalty.

Brand love has been responsible for multiple studies in the past two decades, being one of the most studied topics by scholars in the marketing field. Brand love could be defined as “the degree of passionate emotional attachment a satisfied consumer has for a particular trade name” (Carroll & Ahuvia, 2006: 81). The authors distinguish brand love from brand satisfaction, in the sense that brand love is more of an affective or emotional dimension, rather than a cognitive dimension, which is more correlated to brand satisfaction. The concept of brand love implies passion or attachment to a certain brand, resulting in post-consumption behaviors directed to said brand. One of the forms of post-consumption behavior towards a brand is Brand Advocacy. Brand Advocacy could be defined as the consumers intent to buy new products from a brand, the spread of positive WOM about said brand and their resilience to receive negative information about it (Pai et al., 2013).

Wallace et al. (2012) has shown how consumers tend to engage more with brands that are self-expressive, i.e. brands that the consumer perceives as enhancing of its social self or reflecting its inner self. Self-expressive brands emphasize their aspirational nature, instead of their functional attributes, communicating more of its brand values and lifestyle positioning rather than its products efficiency or benefits. The authors defend that when consumers ‘Like’ brand pages on Facebook they do it in part to express themselves, considering that brand an extension of their inner self, and thus expressing their inner self to other people in their network. The authors demonstrated that consumers that “Like” self-expressing brands on Facebook are therefore more likely to express Brand Advocacy about said brands, simultaneously providing positive E-WOM about these brands to their

network. This builds upon the work done by Carrol and Ahuvia (2006), when the authors suggested that brands that are self-expressive and/or have more hedonic products are more likely to see a higher level of brand love. On the other hand, Leckie, Nyadzayo, & Johnson (2016) have tested how self-expressive brand correlated with both Hollebeek's dimensions consumer-brand engagement but also with brand loyalty. The authors concluded that self-expressive brand does not contribute to brand loyalty, although it does have a positive relation with both emotional and cognitive dimensions.

2.3 Unilever and Consumer-brand engagement

This project is focused on Unilever's online consumer brand engagement, and it aims to comprehend which online communication patterns lead to more positive sentiments from consumers. Unilever is one of the biggest Fast-Moving Consumer Goods (FMCG) companies in the world and has in its portfolio a vast number of recognized brands that operate in different categories from Food and Beverages, to Personal Care or Home Hygiene products. The FMCG industry, also referred to as Consumer-Packaged Goods (CPG) industry, is frequently characterized by having low-priced products that are of rapid consumption (Leahy, 2011). Food, personal care products and detergents are some of the many examples of FMCG products. FMCG products are typically distributed through retailers in multiple locations to facilitate consumers access and incentivize purchase, making availability one of the key strategies for FMCG brands (Kotler and Armstrong, 2012). This industry is also characterized by having low switching costs for consumers, resulting in a very competitive environment (Dibb et al., 2006).

In one of the most relevant studies in consumer-brand engagement of the last decade, Hollebeek et al. (2014) asked a group of consumers to indicate a brand they used that they considered as highly engaging and one that they considered as not engaging at all. Three out of ten respondents identified Fast-Moving Consumer Goods (FMCG) brands as their best example of non-engaging brands, and zero FMCG brands as their best example of engaging brands. In this study, the authors concluded that consumers "described their selected 'non-engaging' brands primarily in terms of price-consciousness and functionality, i.e. brands perceived as necessities, or a predominant focus on utilitarian, as opposed to hedonic, brand characteristics" (Hollebeek et al., 2014: 154).

Unilever has some of the most recognized FMCG brands in the world. The company's portfolio accounts with leading brands in different consumer goods categories, ranging from beauty and personal care brands as Dove, AXE or TRESemmé, to household cleaners as CIF or Comfort or food brands as Knorr, Olá (Wall's ice cream) or Hellman's.

In recent years, Unilever has adopted a strategy to develop brands with "Purpose", i.e. brands that have a social responsibility mission or that simply go beyond their utilitarian characteristics (Unilever, 2016). Dove is a flagship of this strategy, positioning itself as a brand that advocates for the real beauty and equal rights of women. However, as the company itself admits in its *Making Purpose Pay: Inspiring Sustainable Living* report, the evidence that brands with purpose contribute to sales growth or increase trust is yet to be proven. As far as the authors know, it is also yet to be proven how communicating brand purpose can affect Unilever brands' online consumer-brand engagement. Most Unilever brands have a purpose associated to it, a sentence that guides the brand's mission and actions. In Table 1. it is shown the Purpose definition given by Unilever itself to each one of its brands.

Table 1. Unilever brands' Purpose definition

Category	Brand	Purpose
Personal Care	Dove	To inspire women to feel happier with their appearance.
	Simple	To be delicate with the skin and the planet.
	TRESemmé	Equipping women to make their presence count.
	Rexona	Making every movement count.
	Axe	Inspire guys to unleash their magic.
	Linic	To power up the resilience of youth so they can cope with social anxiety & perform at their best.
Home Care	Skip	Dirt is Good, because we believe that children develop best when they are free to get dirty.
	Surf	Take a more enjoyable approach to laundry than other brands.
	Comfort	Long live clothes.
	CIF	To restore the beauty of homes & neighborhoods to improve wellbeing.
	Sun	-
Foods and Refreshment	Hellmanns	Inspires to reduce food waste through tips and recipes.
	Maizena	-
	Magnum	Inspire Pleasure Seekers to overcome fear of judgement and be true to superior pleasure.
	Cornetto	To convey love and friendship.
	Solero	Sustainable source ingredients and say no to waste.

Carte D'or	Creating legendary moments.
Ben & Jerry's	Economic and social justice, environmental restoration and peace through understanding.
Lipton Ice Tea	To enhance connected wellbeing in society by enabling quality connections.
GROM	-
Pure Leaf	To enhance connected wellbeing in society by enabling quality connections

Source: Unilever

Considering this is one of the most strategic pillars for Unilever, we developed the following hypothesis for brands communicating purpose:

H5: Brand's Facebook posts communicating brand purpose have a positive correlation with sentiment score.

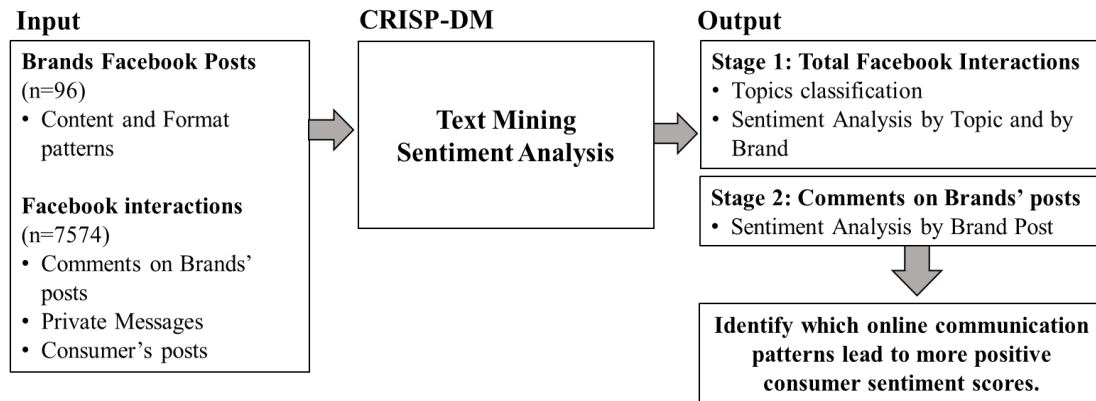
To test this hypothesis the authors will evaluate each post made by each of these brands and if the post itself transmits the purpose associated to the brand. The criteria for this decision making will be clarified further ahead in this study. Obviously, this has a certain level of judgment, especially considering that some brands have a clearer purpose than others. For instance, Dove's brand purpose is extremely clear, with a focus on creating awareness around "real beauty", the brand intends to reassure women's confidence about their looks. On the other hand, there is the case of brands that have not yet had a Purpose defined by the Unilever, as is the case of Sun, GROM and Maizena.

Although we covered numerous studies around online consumer-brand engagement, to the authors knowledge there are still no relevant studies that identify which Unilever Brands' online communication patterns lead to more positive sentiments from consumers. This project is of ultimate relevance considering the company under analysis, Unilever, which counts with several highly recognized brands in its portfolio, the vast majority of them market leaders in their segments, and that are not perceived by consumers as belonging to the same corporation. This study can shed a light on how different brands, from the same company, can drive different consumer sentiments results and which communication patterns led to more positive sentiment scores.

With this project we aim to answer the following question: *Which communication patterns lead to more positive sentiments in Unilever Brands' online consumer-brand*

engagement? To answer the research question and test the hypothesis created, we developed a two-stage approach that can both provide value to Unilever's management decision and provide theoretical contributions. A framework of the proposed approach is presented in Figure 1.

Figure 1. Project Framework



Source: Own elaboration

For this study, we will use as Input the content and KPIs extracted from Unilever brands' Facebook posts. We will analyze the content of each Brand post and identify it according to their communication pattern, which we divided between Content and Format. The criteria used to identify each communication pattern will be described in the Methodology section, when analyzing the data collected. The first type of pattern relates to the content of the posts published by the brands, while the second pattern relates to the format of said posts. For content patterns we will analyze if the posts contain a *challenge* (H1), a *call-to-action* (H2), a *product innovation* (H4) or the *brand purpose* (H5). A single Brand post could have one, two, or even three of the patterns identified present in the communication. For format we will analyze if the post is in a *video* (H3a) or *static image* (H3b) format, in this case each post will be associated with either one or the other. We will also extract all comments made by consumers in those Brand posts, matching the consumer comments to the respective Brand Post. We will also extract other interactions like private messages and posts made by consumers made by consumers in the Brands' Facebook pages.

To extract and analyze the data from the Brands' Facebook accounts, we will use Text Mining and Sentiment analysis techniques that will allow us to extract all the raw data in

text, identify common topics mentioned by the consumers in each brand's page, and understand the underlying sentiment in each consumer written comment.

2.4 Text Mining and Sentiment Analysis

In the most recent years, text mining methods have been used in many relevant studies around online consumer brand engagement (Xu & Li, 2016; Singh et al., 2017). Text Mining could be defined as a data mining method that analyses unstructured raw data with the purpose of extracting valuable information to solve the problem under study (Fan et al., 2006). Text mining is a technique that allows researchers and managers to find valuable information hidden in large sets of data. It is one of the most common business intelligence tools used to analyze large amounts of text information such as messages, online reviews, comments, or any other written documents.

Text mining is a particularly useful method to find patterns, trends, or common topics within these text databases that would not be visible otherwise. This technique makes it easier to digest the overload of information that is extracted, therefore helping on decision making. Exploring such a large amount of data brings evident benefits, such as having richer information to analyze but also more reliable data in the sense that the larger the sample the less likely it is to be skewed. Text mining techniques can be extremely useful for managers, since companies can have access to an overwhelming amount of data that most of the times has no reasonable way to be analyzed (Fan et al., 2006).

The growth of user-generated content, through social media platforms as Facebook, gave companies and researchers the necessary data to analyze consumer behavior, opinions, and expectations. Using text mining tools was one of the best ways companies and researchers found to navigate through the ocean of data created by consumers. In the past decade, multiple academic studies have used text mining tools to bring out to surface relevant insights from text-based data as online reviews, social media posts or consumer comments (Singh et al. 2017; Xu & Li, 2016; Calheiros et al., 2017).

The insurgence of user-generated content has also allowed marketers and researchers to analyze the emotions behind consumers comments and reviews. This practice is commonly referred to as Sentiment Analysis, a data mining method that reads sentiments

underlying the text. It could also be referred to as opinion mining, review mining, or emotional polarity analysis (Liu, 2012). Sentiment Analysis techniques classify the polarity of a certain text, identifying if it has a positive or negative innuendo, therefore associating a certain comment, review or other form of user-generated comment as having a positive, neutral or negative sentiment (Cambria et al., 2013). Both Sentiment Analysis and Text mining use Natural Language Processing (NLP), an artificial intelligence component that allows computers to understand and interpret human language in the form of text (Ehsani and Knodt, 1998)

When performing a Sentiment Analysis, researchers usually approach it in two stages, a first stage where it is performed a text mining screening on the data to identify patterns of common topics, expressions or other dimensions that help to classify text, and a second stage where the polarity of the sentiments underlying the text is analyzed, resulting in a classification of the valence of the data, either positive or negative, and the strength of that sentiment, usually either positive or very positive, as well as negative or very negative (Medhat et al., 2014; Pang and Lee, 2004).

In the past decade, researchers have been using Sentiment Analysis to develop a better understanding of consumers opinions and emotions regarding a certain brand, product, or service. This kind of analysis is commonly performed in studies around tourism and leisure services (Xu and Li, 2016; Shi and Li, 2011) and e-commerce (Singh et al., 2016; Hu et al., 2014). Companies operating within these industries can be considerably impacted by both positive and negative reviews. It has been stated by several researchers that the sentiments of the reviews have a direct significant impact on sales (Li & Wu, 2010; Liu et al., 2013; Schumaker et al., 2012; Hu et al., 2014). This has given out a signal to companies of the importance of analyzing consumer's opinions, which has become more accessible to marketers through commonly used tools as Hootsuite (www.hootsuite.com), Hubspot (www.hubspot.com) or Lexalytics (www.lexalytics.com), among other platforms that have integrated Sentiment Analysis tools in their portfolio. Consumer's opinions have been extracted not just from tourism and leisure platforms as Booking.com or Yelp (Xu & Li, 2016), but also from large social media platforms as Facebook or Twitter (Colliander et al, 2015; Mostafa, 2013). Extracting data from social media platforms with a high number of monthly active users, more precisely from Facebook which is the nº1 platform in the world in this regard (Statista, 2020), can be of extreme value due to the size of the sample extracted, in the

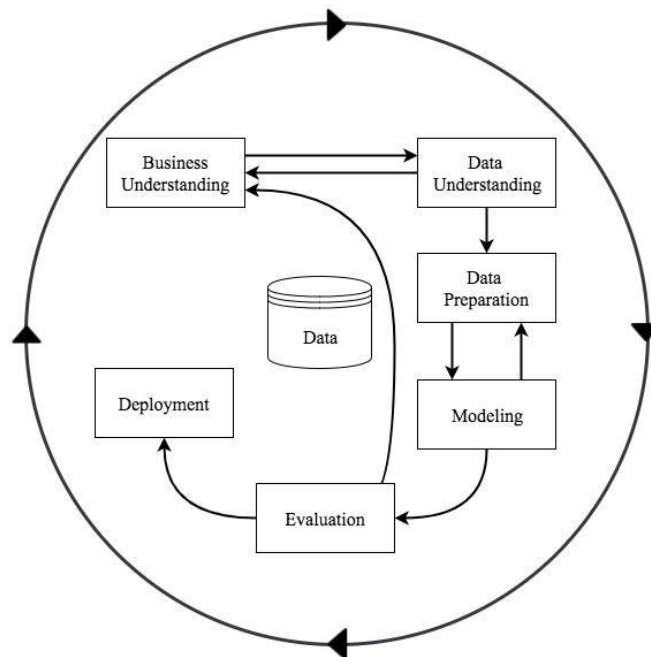
sense that a large database is very unlikely to be biased, therefore having a more robust representation of consumer's opinion regarding a certain brand or specific communication (Mostafa, 2013).

3 Methodology

3.1 CRISP-DM Overview

This project will follow the CRISP-DM methodology. CRISP-DM translates into Cross-Industry Process for Data Mining and is a methodology that allows to work on data-mining project in a planned, structured, and standardized matter (Chapman et al., 2000). CRISP-DM is a common methodology used in the Business intelligence field, being the standard process model to systemize knowledge discovery. CRISP-DM is widely accepted to be a valuable tool to guide data mining projects, at the same time being industry neutral (Schäfer, Zeiselmaier, & Becker, 2019). According to CRISP-DM, the process of Data mining should follow six steps: 1. Business Understanding; 2. Data Understanding; 3. Data Preparation; 4. Modeling; 5. Evaluation and 6. Deployment (Chapman et al., 2000). The flow of the data-mining process is represented in Figure 2.

Figure 2. CRISP-DM methodology



Source: (Chapman et al., 2000)

As shown in Figure 2, the first stage of CRISP-DM is Business Understanding. In this first step, it should be made clear what are the objectives and needs of the business under analysis, as well as defining the objectives of the data-mining process. This first step is

where a plan for the project is drawn. The second step of this methodology is Data Understanding, where the initial collecting of data is made, as well as the descriptive and exploratory analysis (Schäfer et al., 2019). In this step the quality of the data is validated, and any problem with the data collected should be identified and corrected. The third step in CRISP-DM is Data Preparation, where should be defined the variables that will be under analysis as well as the formatting and stemming of the data (*ibidem*). In this step we shall have a final dataset that is ready for analysis in the following step: Modelling. This fourth step is where the technique for testing and analyzing the data is selected. A model for analysis is created as well as its evaluation, considering its parameters and quality criteria (*ibidem*).

Once the model is created, we enter the fifth step: Evaluation. In this step the results of the test are analyzed using the business criteria and KPIs that were previously defined. It should be made a revision of the test to ensure its quality, and it should be determined which are the next steps (*ibidem*). The final step phase of CRISP-DM is Deployment, where a report is made with the results. This report should also include a plan to monitor and maintain the implementation of the models created in the company or organization under analysis (*ibidem*).

In the following chapters, we will use CRISP-DM methodology to guide our analysis of the data. These six steps will allow us to perform the data mining and modeling in a structured and standardized way. In the end of this chapters, we should be able to answer our research question, test our hypothesis, and create a deployment plan for Unilever to introduce in its Marketing plans.

3.2 Business Understanding

This first step of the CRISP-DM methodology is where we outline the business needs and objectives for this project. In the Business Understanding phase, it should be laid out what is the success criteria for the project, what are the business and data mining objectives and its requirements (Shafique and Qaiser, 2014).

This project is elaborated within the scope of Unilever, with the intent to analyze its brands' consumer-brand engagement and what communication patterns lead to more positive engagement.

Unilever has the tools and expertise to further develop its knowledge about its brands' consumer engagement performance, going beyond what is currently being done in this area at the firm. A multiple-segment market leader like Unilever should be able to understand how its consumers perceive its brands. Although several analysis related to the Brands' equity, awareness, or intent to purchase are currently done in the company, as far as the authors know, currently there is no analysis regarding consumer-brand engagement implemented in Unilever's ways of working. With this project, Unilever will be able to understand which of its Business Units (Foods & Refreshment, Home Care or Personal Care), and more specifically which of its brands, are delivering a more positive consumer-brand engagement, by analyzing the sentiment score underlying in the consumer interactions made in the Brands' Facebook accounts. Besides having this overview, this project will unfold what patterns of the brands' communication lead to more positive online consumer-brand engagement, by mapping the communication patterns used in the Brand's posts, and analyzing the sentiment score in the consumer Facebook comments made on such posts.

The main objectives of this data mining process are the following:

1. Understand which online communication patterns deliver more positive sentiment score.
2. Understand which Unilever Business Units and Brands are delivering a more positive or negative sentiments from consumers in its online consumer-brand engagement.
3. Find which topics are mentioned the most by consumers per each brand and which topics are associated with more positive or negative sentiments.
4. Contribute with a strategy to be implemented by Unilever to track the brands Sentiment Score and to serve as support to managerial decision making to improve consumer's engagement and sentiment towards the brands.

In the next step of CRISP-DM, Data Understanding, we will look at the data under study, to afterwards work on that raw information on Data Preparation. In Modelling we will describe the analysis methods used to test the hypothesis and then Evaluate the results. In Deployment we will use the learnings from Evaluation to define a strategy to be implemented by Unilever to track and improve its Brands' consumer-brand engagement.

3.3 Data Understanding

The second step of this CRISP-DM methodology is Data Understanding. In this step we outline where the initial collecting of data was made and analyze the initial descriptive and exploratory analysis. For this project, the consumer-brand engagement data was collected from the Facebook accounts of a selection of Unilever brands in Portugal. The data collected refers to any interaction that occurred between the 1st of October of 2018 and the 31st of August of 2019. We collected the data of every single post made by a selection of Unilever brands during this period, as well as all “interactions” made by consumers, i.e. all comments made by consumers in the brands' posts, private messages, and posts made by consumers in the brand pages. For each Brand post, we collected data about its written content and format (video or static image). All Facebook posts content as well as all interaction's content was collected from several Unilever brands' Facebook pages, as shown in **Table 2**.

Table 2. Brand posts and interactions extracted on the Facebook pages analyzed.

			Consumer Interactions			
Brand	Facebook Page	Nr of Brand Posts	Nr of Comments on Brand Posts	Nr of Consumer-made Posts	Nr of Private Messages	Total Consumer Interactions
TRESemmé	TRESemmé Portugal	9	23	6	4328	4357
AXE	Axe Portugal	14	299	77	492	868
Dove	Dove (PT)	16	84	27	210	321
Surf	Surf Detergente para Roupa	6	187	1	47	235
Rexona	Rexona (PT)	5	83	7	112	202
Lipton	Lipton (PT)	5	6	13	181	200
Magnum	Magnum (PT)	8	85	25	64	174
Ben & Jerry's	Ben & Jerry's (PT)	1	33	32	88	153
Carte D'Or	Carte D'Or (PT)	1	68	13	61	142
Pure Leaf	Pure Leaf (PT)	6	36	5	101	142
Maizena	Maizena	2	27	36	76	139
Comfort	Comfort	0	0	2	102	104
Simple	Simple Skincare (PT)	3	35	3	59	97
Skip	Skip Portugal	0	0	6	88	94
CIF	Casa Cif (PT)	2	48	0	35	83
LINIC	LINIC	3	20	5	53	78
Lipton Ice Tea	Lipton Ice Tea (PT)	10	35	9	0	44
Hellmann's	Hellmann's (PT)	2	7	14	20	41
Cornetto	Cornetto (PT)	0	0	6	31	37
GROM	Grom Gelato PT (PT)	0	0	5	25	30
Solero	Solero	3	13	6	9	28
Sun	Sun	0	0	0	5	5
Grand Total		96	1089	298	6187	7574

Source: Own elaboration

During this period, we were able to extract a total of 96 Facebook posts made by the Brands. Those posts generated 1089 comments made by consumers. In total, we extracted 7574 consumer interactions, composed by the 1089 comments on brand posts, 298 posts made by consumers on the brands' pages and 6187 private messages sent by consumers to the brands. This data collection was made possible due to the authors having administrative access to each one of the Unilever brands' Facebook accounts. The access to the Facebook accounts was granted with the cooperation of Unilever, which was facilitated since the author currently works in the marketing department of Unilever FIMA in Portugal. It was also made possible by using Hootsuite (www.hootsuite.com), a social media management software that also contains text mining techniques that can automatically extract all content from posts, comments and private messages from one or multiple Facebook accounts.

3.4 Data Preparation

After extracting the data for the Input, using Hootsuite's text mining tools, we will then perform a Text Mining analysis to identify common terms and topics in the consumer interactions extracted. These are all the 7574 interactions collected (1089 comments, 298 posts made by consumers, and 6187 private messages).

For this project, we used MeaningCloud (MeaningCloud, 2019) to perform both the Text Mining and Sentiment Analysis. MeaningCloud is a Business Intelligence software that can be operated using PHP, Python, Microsoft Excel, or other information management software. For this study, we used the MeaningCloud's Microsoft Excel extension to perform the Text Mining and Sentiment Analysis. This tool uses the content of each interaction submitted by the users, analyzes the sentence, and categorizes the text within certain topics according to the dictionary that is used as input to the software. MeaningCloud already has pre-built dictionaries for several languages, however, as this are basic dictionary settings, some manual adjustments were needed to minimize error. This tool combines a set of NLP techniques to obtain the most common topics present in text databes, such as common names, concepts, places, organizations, among other significant elements. This tool is also able to extract multi-word concepts, for example "financial crisis" (Topics Extraction API | MeaningCloud, n.d.), which enables a more

accurate identification of the topics discussed by consumers. Recent research has used MeaningCloud as a valuable tool to perform knowledge extraction studies from unstructured data (Martínez et al., 2016; Segura-Bedmar et al., 2015).

Besides the topic segmentation, MeaningCloud also has a tool that performs a Sentiment Analysis to identify the sentiment behind the text. The tool will read the sentiment underlying to the text, understanding if the comment has a positive or negative intent, and evaluate it in a 5-level scale, from P+ (very positive) to N+ (very negative). If the software is not able to understand the sentiment associated to the text, or if the text itself was written with no underlying sentiment, it will classify the interaction as Neutral. This will allow us to understand which brands, and respective categories, are receiving more positive or negative interactions with their consumers. It will also allow us to cross check this data with the topics identified as most common in consumer interactions, understanding which topics are being used by consumers to express more positive feedback or negative feedback. Table 3 demonstrates the 5-level scale classification and the value associated to each one of the sentiment levels.

Table 3. *Sentiment Analysis: Sentiments 5-level scale classification*

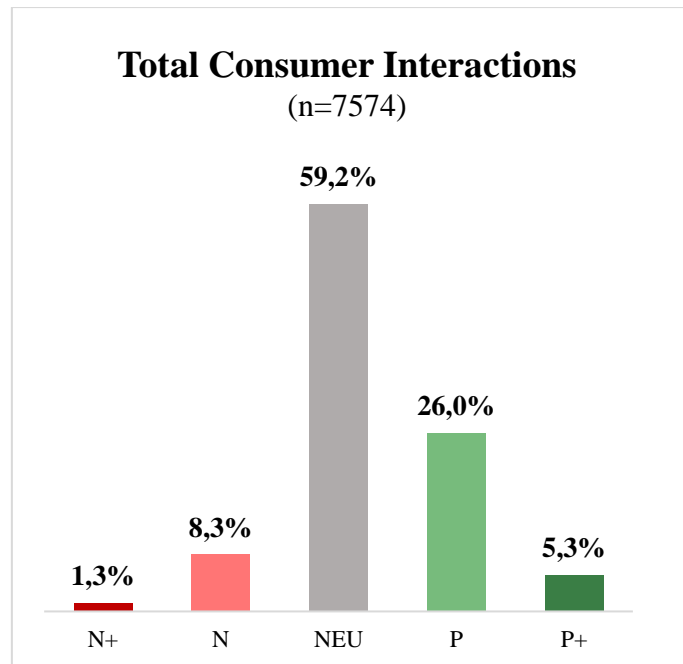
Sentiment	Abbreviation	Value
Very Positive	P+	2
Positive	P	1
Neutral	NEU	0
Negative	N	-1
Very Negative	N+	-2

Source: Own elaboration

3.4.1 Stage 1 – Text Mining and Sentiment Analysis of total consumer interactions

Using the previously mentioned tool MeaningCloud, we performed the Sentiment Analysis on the 7574 consumer interactions extracted from the Facebook accounts and referred in the Data Understanding step. The following Figure 3 demonstrates the total interactions analyzed and the correspondent sentiment score associated to it.

Figure 3. Sentiment Analysis: Total interactions per each Sentiment level



As it is visible in Figure 3, most of the comments extracted, over 59%, were associated to a neutral sentiment. This already indicates that most of the interactions between the brands and the consumers were mostly informative and/or carrying a low level of emotion in its speech. Above 30% of the interactions had a positive sentiment underlying the written text of the consumers. This gives a positive indication that, on average, the interactions between the consumers and Unilever Brands are associated with a positive sentiment. Nevertheless, almost 10% of total consumer interactions (724) had a negative sentiment underlying in the text. In the following sections, we will start to understand how these results differ between Business Units, and afterwards how they differ between brands. As mentioned before, Unilever divides its business in three main Business Units: Beauty and Personal Care, Home Care and Foods and Refreshment. For Table 4, we computed the sentiments associated to each comment to its respective value (as mentioned in Table 3), therefore achieving an average sentiment score for the total interactions. Then, we crossed this data with the respective Business Units.

Table 4. *Sentiment Analysis: Sentiment score per Business Unit*

Business Unit	Nr of Interactions	Average Sentiment Value
Beauty & Personal Care	5258	0,22
Home Care	761	0,66
Foods & Refreshment	1555	0,19
Total Unilever	7574	0,26

As it is possible to see in Table 4, and as it was previously predicted in Figure 3, Unilever has a positive average sentiment value of 0,26. This means that, on average, the interactions made by consumers on Unilever's Brands' Facebook pages have a positive sentiment associated. However, there are clear differences between Business Units. Home Care brands are the best performing when it relates to sentiment score, achieving, on average, a sentiment value of 0,66. This is a clear indication that Home Care Brands over perform in terms of Very positive and Positive feedback from its consumers. On the other hand, both Foods & Refreshment brands as well as Beauty & Personal Care brands contribute to lower the average sentiment score, having a sentiment score of 0,19 and 0,22 respectively. The below-average sentiment score of Beauty & Personal Care brands is heavily influenced by an extremely high number of interactions with a Neutral sentiment associated, therefore lowering the average sentiment score. In the following section we will understand how does the mix of Sentiment level scale per each Business Unit.

In Figure 4, Figure 5 and Figure 6 it is possible to see the number of consumer interactions in each of the sentiment level scale, for each of the Business Units. Following on Mostafa (2013) work, we decided to exclude the Neutral comments for easier reading of the results. For a better understanding of each Business Unit performance, we also included the total result for Unilever, therefore representing the average score of the company. This way, we can easily understand which Business Units are over or under performing when compared to the total Unilever, and specifically in which levels are those differences occurring.

Figure 4. Percentage of interactions of each Sentiment level, excluding neutral sentiment comments: Beauty & Personal Care vs Average Unilever

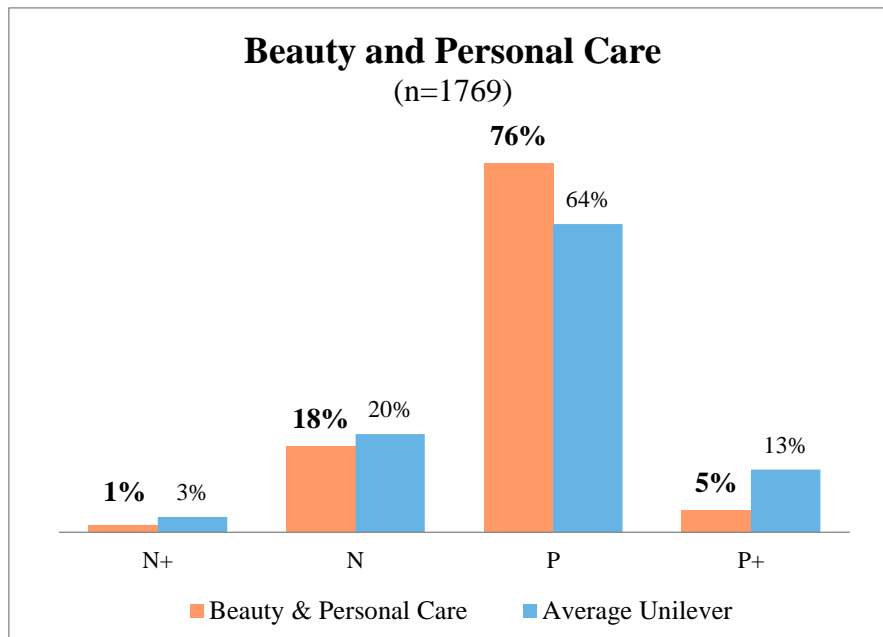


Figure 5. Percentage of interactions of each Sentiment level, excluding neutral sentiment comments: Home Care vs Average Unilever

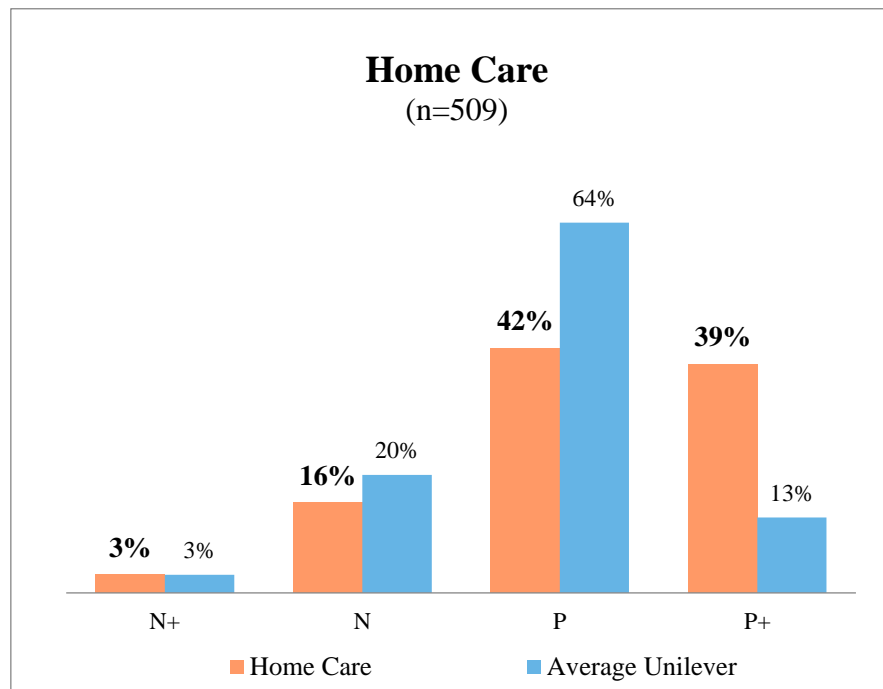
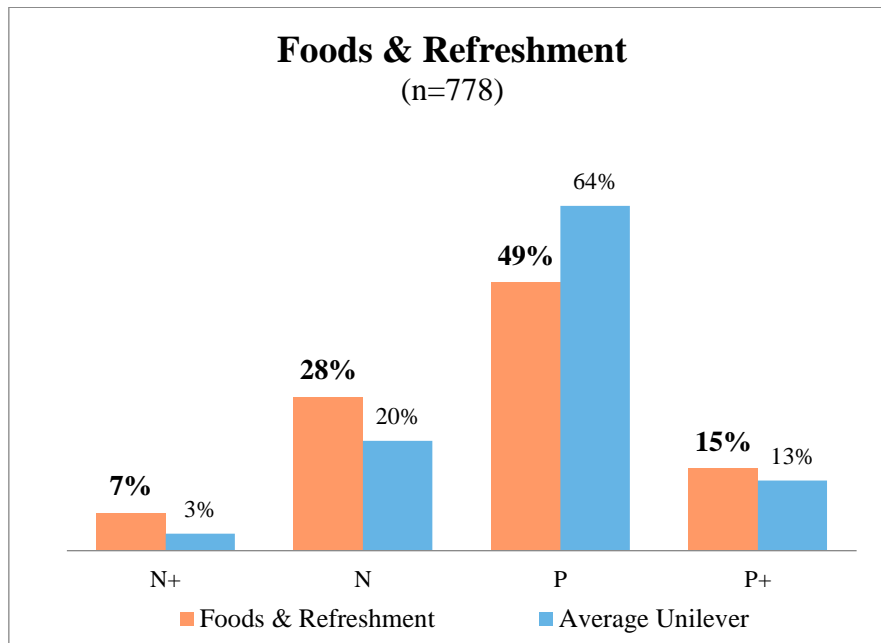


Figure 6. Percentage of interactions of each Sentiment level, excluding neutral sentiment comments: Foods & Refreshment vs Average Unilever



In Figure 4, it is possible to see that Beauty & Personal Care brands, although having a below average score on average sentiment value, have an extremely high incidence in comments with a Positive sentiment. This makes it clear how a high number of Neutral comments were influencing Beauty & Personal Care brands average sentiment score. When excluding the neutral comments, 76% (1348) of the consumer interactions were associated with a positive feeling, and 5% (81) as a very positive one. Beauty & Personal Care brands clearly have an over index of moderate positive or negative comments when compared to the very positive or very negative comments. As it was anticipated in Table 4, Home Care brands have an extremely high incidence of Very Positive sentiments, pre-indicating that the brands should be having an excellent performance in driving consumers positive engagement. Home Care brands are clearly the over performers within the Unilever context, having over 80% of the interactions associated with a positive sentiment (excluding neutral comments). On the other hand, Foods & Refreshment brands have a more negative sentiment score than the previous two business units, although still maintaining most posts with a Positive sentiment. This analysis is of extreme value to Unilever's management. Since the company divides its structure per Business Unit Category, each team and respective leadership can look at this Sentiment Score in a more macro view, regarding the total of each Business Unit, being therefore

able to analyze its performance on a Business unit level. In the following section, we will go deeper into this analysis by looking at which Brands are associated with more positive or negative engagement by its consumers.

Table 5 showcases the number of interactions extracted in each Brand Facebook Page and the respective sentiment level associated to each consumer interaction.

Table 5. *Number of Consumer interactions per each Sentiment level per Brand*

Facebook Page	N+	N	NEU	P	P+	Grand Total
TRESemmé Portugal	4	126	2154	840	9	3133
Axe Portugal	13	128	760	257	33	1191
Dove (PT)	8	27	274	103	32	444
Surf Detergente para Roupa	16	34	85	109	123	367
Magnum (PT)	43	97	105	57	26	328
Rexona (PT)		7	193	71	6	277
Ben & Jerry's (PT)		24	147	60	12	243
Carte D'Or (PT)	1	28	90	82	31	232
Lipton (PT)	6	18	128	63	9	224
Pure Leaf (PT)	2	26	86	45	16	175
Maizena	2	10	87	37	18	154
Comfort		17	77	35	17	146
Casa Cif (PT)		16	23	34	57	130
LINIC		12	76	40		128
Skip Portugal		12	65	33	3	113
Simple Skincare (PT)	1	14	32	37	1	85
Hellmann's (PT)	1	13	29	20	1	64
Grom Gelato PT (PT)		5	31	10	1	47
Cornetto (PT)		7	20	18		45
Lipton Ice Tea (PT)		4	11	8	5	28
Solero		2	6	5		13
Sun			0	3		3
Day2 Portugal			2			2
Grand Total	97	627	4483	1967	400	7574

As it is clear in Table 5, TRESemmé is the brand with the highest number of interactions registered in its Facebook page. This Beauty & Personal Care brand was one of the main reasons why this Business Unit had its sentiment score below average, since it has an extremely high number of consumer interactions with Neutral Sentiment. This is explained by the high number of interactions resulting from private messages which had, in its majority, less emotional sentiment scores due to its utilitarian function. It is also

clear from Table 5 that Home Care brands as Surf and Cif have an extremely high incidence of positive interactions. These two Home Care Brands, although having much less interactions than TRESemmé, present a much positive mix of sentiment level score. On the other hand, Foods & Refreshment brand Magnum presents a less positive mix of interactions sentiment, having 43% of its interactions being either associated to Negative or Very Negative sentiments. To better understand how each brand performs in terms of Sentiment Score, we computed the average sentiment value as previously done in Table 4. Table 6 shows the Average Sentiment Score per brand, sorted from the highest scoring brand to the lowest scoring brand. We also included the Number of interactions for a fairer evaluation of the average sentiment score.

Table 6. Average Sentiment Score per Brand

Facebook Page	Nr of Interactions	Average Sentiment Value
Casa Cif (PT)	130	1,01
Sun	3	0,86
Surf Detergente para Roupa	367	0,79
Lipton Ice Tea (PT)	28	0,49
Carte D'Or (PT)	232	0,49
Maizena	154	0,38
Comfort	146	0,36
Dove (PT)	444	0,28
Rexona (PT)	277	0,27
Simple Skincare (PT)	85	0,27
Pure Leaf (PT)	175	0,27
Unilever	7574	0,26
Ben & Jerry's (PT)	243	0,25
Cornetto (PT)	45	0,24
Skip Portugal	113	0,24
TRESemmé Portugal	3133	0,23
Lipton (PT)	224	0,23
Solero	13	0,22
LINIC	128	0,22
Grom Gelato PT (PT)	47	0,15
Axe Portugal	1191	0,14
Hellmann's (PT)	64	0,11
Day2 Portugal	2	0,00
Magnum (PT)	328	-0,23

Table 6 sheds a light on the assumption previously made that both Cif and Surf brands contributed to the high average sentiment score of the Home Care Business Unit. In fact, these two brands are the main contributors to said result, being Cif the Brand with the highest sentiment score in Unilever in Portugal, during the period under analysis. Within the Foods & Refreshment Business Unit, Lipton is the best performing brand, however, due to the higher absolute number of interactions registered, and an equivalent average sentiment score, Carte D'Or is the main responsible for increasing this Business Unit's score. As previously seen in Table 4, Unilever sits at an average sentiment score of 0,26, seeing its score being dragged down mainly by brands as TRESemmé, Axe and Magnum. The Ice Cream brand was the only brand in the whole Unilever portfolio to register a negative average sentiment score, with an overwhelming -0,23. This means that, on average, consumer interactions made in the Magnum Facebook account have a negative feeling attached to its message. This is of the utmost relevance for Unilever Brand Managers and remaining Marketing teams, giving visibility to understand how are consumers engaging and perceiving the brands in its online consumer-brand engagement. For Unilever Marketing teams this could mean a review of the current communication efforts, specifically for the brands that sit below Unilever's average sentiment score.

Beyond understanding the average sentiment score per brand, for Unilever Brand Managers it is valuable to see which specific topics positively or negatively contribute to each Brand sentiment score. We therefore collected the most common topics used in the interactions extracted from the Unilever brands' Facebook pages. The topic extraction was conducted through MeaningCloud, which combines a set of NLP techniques to obtain the most common topics present in text databes, such as common names, concepts, places, organizations, among other significant elements. The topics extraction through MeaningCloud generated a total of 12.106 topics, within the 7574 interactions exported from the brands' Facebook pages. **Table 7** demonstrates the Top 6 most frequent topics mentioned in every Beauty and Personal Care brand, as well as the top 6 terms with the highest positive polarity, i.e. the topics that were the most times associated with a positive sentiment. Polarity is calculated by the sum of the sentiment value of all interactions that mentioned the specific topic (for example, if the topic "produto" is mentioned in 10 interactions, 8 of them with a Positive score of +1, and 2 of them with a Negative score of -1, it would result in a Polarity of 6).

Table 7. Topics frequency and positive polarity: Beauty and Personal Care

Category	Brand page	Rank	Topic	Frequency	Rank	Topic	Polarity
Beauty and Personal Care	Axe Portugal	1	ring	52	1	produto	7
		2	Portugal	49	2	parceria	6
		3	online	21	3	oportunidade	4
		4	league	20	4	abraço	4
		5	master	18	5	nacional	3
		6	match	17	6	ring	2
	Dove (PT)	1	Dove	29	1	Dove	9
		2	Bebe	17	2	produto	6
		3	Marca	11	3	ADORO	4
		4	baby	9	4	Uso	4
		5	Pele	7	5	baby	3
		6	produto	5	6	rotina diária	2
	LINIC	1	LINIC	6	1	Obrigado	3
		2	Como	5	2	LINIC	3
		3	casa Fitness	4	3	Fitness Hut	2
		4	Hut	3	4	Marca	2
		5	Muito Cristiano	3	5	Vida	2
		6	Ronaldo	2	6	porto	1
	Rexona (PT)	1	Rexona	5	1	prémio	3
		2	saber	5	2	Obrigado	3
		3	Portugal	5	3	mercado	2
		4	Obrigada Now	5	4	Novo	2
		5	United	3	5	produto	2
		6	prémio	3	6	Now United	2
Simple Skincare (PT)	1	produto	7	1	produto	5	
	2	Mala	5	2	Mala	3	
	3	casa	3	3	limpeza	3	
	4	limpeza	3	4	Descubra	1	
	5	Garnier	2	5	Portugal	1	
	6	Pele	2	6	Obrigada	1	
TRESemmé Portugal	1	Love	262	1	cuidado	89	
	2	produto	212	2	produto	11	
	3	Hair	182	3	Gosto	6	
	4	Penteados	115	4	mercado	4	
	5	Cabelo	102	5	Uso	4	
	6	Dicas	89	6	Aulas	4	

As it is evident by analyzing the Table 7, topics used by consumers are completely different from brand to brand, although belonging to the same Business Unit. It is also clear that most frequently used terms are not necessarily the terms that are associated with the most positive sentiments. The most frequent terms are clearly associated with specific brand campaigns or strategies, as is the example of AXE, with terms as “ring”, “online”, “league” and “match” that are all associated with eSports activities where AXE is regularly a brand sponsor. One common topic among the brands is “produto”, which is commonly used when consumers are giving their feedback or looking to know more about a certain product.

In Table 8 it is possible to see the most common terms associated with a negative sentiment in these same Beauty and Personal Care brands.

Table 8. Topics with negative polarity: Beauty and Personal Care

Category	Brand page	Rank	Topic	Polarity
Beauty and Personal Care	Axe Portugal	1	Dust2	-3
		2	e-Sport	-3
		3	Bulls de Chicago	-2
		4	cookie	-2
		5	-	-
		6	-	-
	Dove (PT)	1	Mundo	-6
		2	Caro	-2
		3	Lamentável	-2
		4	Comprei	-2
		5	mundo Dove	-2
		6	UniCo	-1
	LINIC	1	insegurança	-1
		2	campanha	-1
		3	Portugal	-1
		4	product	-1
		5	Cristiano Ronaldo	-1
		6	Rico	-1
Rexona (PT)	1	alumínio	-1	
	2	Jumbo	-1	
	3	encontro	-1	
	4			
	5			
	6			

Simple Skincare (PT)	1	casa	-3
	2	Beauty	-1
	3	ajuda	-1
	4	Simple Skincare	-1
	5	#moussedelimpeza	-1
	6		
TRESemmé Portugal	1	Fullness	-2
	2	Marisa	-2
	3	Shampoo Tresemmé Collagen	-2
	4	seca	-2
	5	limite	-1
	6	Caracóis Hidratados	-1

Table 8 clearly illustrates the most common words to be associated with negative feelings from consumers. Consumers clearly express their negative feelings towards specific products in the brands' portfolio, as for example *Shampoo Tresemmé Collagen* in the case of TRESemmé, *cookie* in AXE which is one of the fragrances available in the brands deodorant portfolio, or "alumínio" in Rexona which is a common ingredient in the product's formula. Another common topic to be used by consumers regards the brands' communication, either by addressing the campaign itself or some of its elements, as is the case of Cristiano Ronaldo for LINIC which is the ambassador of the brand in most of its communication.

Table 9 demonstrates the Top 6 most frequent topics mentioned in every Home Care brand, as well as the top 6 terms with the highest polarity.

Table 9. Topics frequency and positive polarity: Home Care

Category	Brand page	Rank	TOPIC	Frequency	Rank	Topic	Polarity	
Home Care	Casa Cif (PT)	1	ADORO	9	1	ADORO	18	
		2	casa	9	2	Cif	7	
		3	Cif	4	3	Marca	4	
		4	Madeira	4	4	casa	4	
		5	Uso	3	5	cá de casa	4	
		6	produto	3	6	Uso	4	
	Comfort		1	roupa	7	1	casa	3
			2	Obrigada	4	2	Quero	2
			3	produto	3	3	Peluche	2
			4	Gosto	3	4	mercado	2
			5	casa	3	5	produto	2
			6	bebê	3	6	menino	2

Skip Portugal	1	produto	9	1	produto	5
	2	casa	9	2	embalagem	1
	3	Obrigada	3	3	plástico	1
	4	roupa	3	4	Skip Portugal	1
	5	Bom	3	5	-	-
	6	embalagem	3	6	-	-
Surf Detergente para Roupas	1	ADORO	12	1	ADORO	23
	2	roupa	8	2	roupa	8
	3	Tenho	6	3	Tenho	8
	4	Novo	6	4	Rosa	7
	5	Rosa	5	5	Azul	6
	6	Marca	4	6	Marca	4

In Table 9 is once again evident that CIF is one of the main influencers for such a positive Sentiment score registered by this business unit. Once again, the most common terms are associated with specific products or communication activities, although in Home Care brands it is clear a higher presence of adjectives as “Adoro” and “gosto”, which also translate to more positive sentiments. In Table 10 it is possible to see the most common terms associated with a negative sentiment in these same Home Care brands.

Table 10. Topics with negative polarity: Home Care

Category	Brand page	Rank	Topic	Polarity
Home Care	Casa Cif (PT)	1	da vida	-1
		2	Quero	-1
		3		
		4		
		5		
		6		
	Comfort	1	Ter	-2
		2	campanha	-1
		3	Grande	-1
		4	Lima	-1
		5	loja	-1
		6	risco	-1
Skip Portugal	1	loja	-1	
	2	parceria	-1	
	3	anúncio	-1	
	4	resultado	-1	
	5	conta	-1	
	6	roupa	-1	
Surf Detergente para Roupas	1	Ter	-2	
	2	campanha	-1	

3	Grande	-1
4	Lima	-1
5	loja	-1
6	risco	-1

Home Care brands registered a very low number of negative interactions, and therefore a very low number of terms contributing to negative sentiments. Most negative terms extracted are either associated with the brands campaigns, and hence the terms “anúncio” and “campanha”, or a difficulty in consumers to find the brands’ products in their local supermarkets, associated with common negative topics as “loja”.

Table 11 demonstrates the Top 6 most frequent topics mentioned in every Foods & Refreshment brand, as well as the top 6 terms with the highest polarity.

Table 11. Topics frequency and positive polarity: Foods & Refreshment

Category	Brand page	Rank	TOPIC	Frequency	Rank	Topic	Polarity
Foods & Refreshment	Magnum (PT)	1	Lili	9	1	Carolina	4
		2	Branco	7	2	family	2
		3	Marca	6	3	sun	2
		4	Portugal	5	4	d. Lili	2
		5	Magnum	5	5	cookie	2
		6	Olá	4	6	#happykids	2
	Ben & Jerry's (PT)	1	Continente	5	1	casa	3
		2	Bom merchandis	5	2	ben	2
		3	ing	4	3	Portugal	2
		4	Caramel	4	4	Ice Cream	2
		5	Olá	4	5	Chunky Monkey	1
		6	casa	4	6	Dairy	1
	Lipton (PT)	1	Lipton	13	1	Lipton	6
		2	Obrigada	11	2	equipa	3
		3	produto	4	3	virtual	2
		4	Novo	4	4	Novo	2
		5	Tea	3	5	Gosto	2
		6	casa	3	6	Impecável	2
	Pure Leaf (PT)	1	Pure Leaf	6	1	armazém	4
		2	armazém	4	2	produto	2
		3	produto	4	3	Obrigado	2
		4	Obrigado	3	4	#Pureleaf	1
		5	Portugal	3	5	-	-
		6	venda	3	6	-	-
Maizena	1	Maizena	5	1	Indiana	4	
	2	Obrigada	3	2	produto	2	
	3	produto	3	3	Perfeito	2	
	4	Indiana	2	4	saber	2	
	5	Voces	2	5	Gosto	2	
	6	Bom	2	6	-	-	

	Rota			
Hellmann's (PT)	1 Hellmann's	6	1 porto	4
	2 porto	4	2 #Faro	2
	3 Bacon	2	Maionese	
	4 Bürger	2	3 Vegana	1
	5 resultado	2	#BoulevardBurg	
	6 -	-	4 erHouse	1
			5 embalagem	1
			6 -	-

Table 11 once again demonstrates the high variety of terms used within the same business unit. It is possible to see a recurring usage of terms regarding the brand's products, more specifically product flavors. It also relevant to point out a high number of mentions regarding the product's ingredients.

Table 12 demonstrates the Top 6 most frequent topics mentioned in every Foods & Refreshment brand, as well as the top 6 terms with the highest polarity.

Table 12. Topics with negative polarity: Foods & Refreshment

Category	Brand page	Rank	Topic	Polarity
Foods & Refreshment	Magnum (PT)	1	Estes	-8
		2	Nunca Máis	-8
		3	Marca	-6
		4	Como	-5
		5	Lili	-4
		6	como Magnum	-4
	Ben & Jerry's (PT)	1	embalagem	-3
		2	Ben & Jerry's	-2
		3	euro	-1
		4	flexibilidade	-1
		5	coffee shop	-1
		6	Cheesecake	-1
	Lipton (PT)	1	canela	-2
		2	escola	-1
		3	formação	-1
		4	pressão	-1
		5	loja	-1
		6	Silhueta Cavalinha	-1
	Pure Leaf (PT)	1	pena não	-2
		2	venda	-2
		3	GALP	-1
		4	Lamações	-1
		5	maia jardim	-1
		6	-	-
Maizena	1	-	-	
	2	-	-	
	3	-	-	
	4	-	-	
	5	-	-	

	6	-	-
Hellmann's (PT)	1	Hellmann's	-3
	2	Rota Hellmann's	-2
	3	mercado	-1
	4	Bürger	-1
	5	-	-
	6	-	-

Table 12 clearly shows why Foods and Refreshment brands had a higher ratio of negative and very negative terms associated. Magnum has a clear over index of negatively valenced comments, having several comments referring to “never buying Magnum again” and “never eating Magnum”. These are clearly associated with a brand campaign where the brand associated its brand ambassadors as Rui Maria Pego, Lili Caneças (also used a negative term) and Carolina Loureiro. This campaign received a very strong negative feedback from the consumers. The remaining Foods and Refreshment brands clearly registered negative terms associated with the products packaging, flavors, and ingredients.

This analysis is of the utmost relevance for Unilever's Marketing teams since it clearly demonstrates which topics are negatively or positively affecting each Brands sentiment score. By adapting the Brands' communications strategies, Brand Managers can reinforce the topics that are conveying more positive sentiments from their consumers, by either increasing the volume or investment of Brand posts about said topics or expand these topics to other media platforms. On the other hand, topics that are most associated with negative sentiments should either be avoided by the Brands or redesigned in its communication, in order to invert consumer's feedback about said topic.

3.4.2 Stage 2 – Which communication patterns lead to more positive sentiment score?

Focusing on Consumer comments on Brands' Posts

For the second stage of this study, we will understand which communications patterns lead to more positive sentiment score, by analyzing the Sentiment Analysis on the content of the comments made by consumers on the Unilever Brands' Facebook posts, and finding which communication patterns used by Brands delivered more positive

sentiments in the consumers comments. We will then understand which communication strategies contribute the most to a more positive sentiment score.

We focused only on the Consumer Interactions that relate with the comments made by consumers on the brands’ Facebook posts. No private messages or consumer-created posts were considered, therefore, and as identified in the Data Understanding step, we considered only the 1089 valid consumer comments made in the 96 Brand posts.

For this second stage, our main objective was to identify which Brand Posts contained the communication patterns identified in our Literature review. We manually screened through every single post made by the brands to identify the communication patterns described. As previously mentioned, the communication patterns chosen for this study were divided in two main topics: Content and Format. For the Content patterns we identified posts communicating the Brand’s Purpose, a new Product Innovation, a Challenge/Game, and having a Call-to-Action (CTA). For the Format pattern, we identified the posts that were a Video and the ones that had a Static image. Due to the large size of the sample, all decision-making regarding communication patterns classification for each Brand Post can be found in Annex 1, in the Annexes. The descriptive results of the patterns identified in the posts are represented in Table 13.

Table 13. *Number of brand posts containing the identified communication patterns*

		Nr of Brand Posts
Content	Purpose	23
	Call-to-Action	47
	Product Innovation	37
	Challenge/Game	14
Format	Static Image	42
	Video	54

As it is represented in Table 13, 23 brand posts contained a message regarding the Purpose of the brand. For this segmentation, the authors used Table 1 presented in the Literature Review containing each Brand Purpose. Brands that have no Purpose associated, as GROM or Maizena, obviously had no posts associated with a purpose communication. For this evaluation, the authors judgement had to be used to decide if a post was or was not communicating the Brand’s Purpose. It could be argued that this methodology has potential for bias or error, however, considering (1) that only Brand posts that had a clear message regarding their purposes were considered and (2) the knowledge that the authors

have regarding this brands and their communication strategy, due to the fact that the authors work in Unilever's marketing department, were two strong enough reasons to consider the viability of this analysis. We firmly believe that we are in the most comfortable position possible to be evaluating this pattern, and therefore consider that bias probability was reduced to a minimum. All the decisions made about posts that contain, or do not contain, a purpose communication are available for consulting in the Annexes, in Annex 1. Figure 7 shows an example of what was considered as a Brand post communicating Purpose and having a Call-to-action.

Figure 7. Example of a Brand post communicating Purpose and having a CTA



“What if it was possible to end beauty stereotypes in the world? Dove created the project #MostremNos - the first publicly accessible photo library with a real representation of women. Together we can create the change we want to see in the world! Learn more at dove.com/MostremNos”

Considering Dove's brand purpose, mentioned in Table 1, “To inspire women to feel happier with their appearance.”, this post clearly falls into the category of posts communicating purpose, since it directly tackles the willingness of the brand to end beauty stereotypes and promote “women's real beauty”. This post was also considered to have a clear CTA, since it asks consumers to find out more in a webpage promoted by the brand, and to be a post with an image format. This same rationale was applied to the 96 brand posts extracted. There were 47 brand posts considered to contain a clear call-to-action, i.e. a clear imperative request for the consumer to take some kind of action, for

example to click a link given by the brand, to comment the post or simply to try a new product.

Out of the 96 posts extracted, 37 of them were considered to have a product innovation. Figure 8. shows an example of a post that clearly communicates a product innovation.

Figure 8. Example of a brand post communicating a product innovation



“The new Surf inspired by nature will cause a real explosion of Coconut Perfume!”

This example of Surf's Facebook post clearly showcases the launch of a new product innovation (a new coconut-perfumed laundry detergent), therefore being considered as having a product innovation. This post was also identified as having a video format.

Finally, the last pattern considered for this study was to have challenge/game asking for the consumers to participate.

Figure 9. Example of a brand post communicating a challenge



“RicFazeres will be at Moche XL Esports and we will give you the opportunity to go too. Do you want to meet him at an exclusive meet & greet? To be one of the winners and have AXEcess to this experience you just have to tell us why you deserve to be one of the lucky ones. The 8 most creative participations win a ticket for 06/15 and the opportunity to play FIFA 2019 with Ric. 😊 Know more here: <https://docdro.id/3refjZK>.”

This AXE post is one of the many examples of challenges promoted by the brands where the consumers can win a reward by providing some form of UGC. In this case, the brand will reward the most creative comments explaining why the consumers want to win the reward (special tickets to a gaming event). For reference, this post was also considered to have a CTA, since it calls for the fans to open the link in the description, and to have a

static image format. After identifying the patterns in each brand post, we were able to identify in which posts each comment was made, by extracting the comments IDs and cross-checking them with the Facebook Post IDs. This way, we knew exactly to which post each comment was reacting to.

Using the Sentiment Analysis that was performed on the total interactions, we then looked specifically for the interactions regarding the 1089 valid comments made by consumers on the Brands Posts. As shown in Table 14, 39,2% of the Facebook comments were considered as neutral (0) in terms of their sentiment. Most of the comments had a positive sentiment score, having either a positive (1) or very positive (2) sentiment associated, with 48% of the total comments. Despite the negative sentiment comments being the minority, very negative (-2) and negative (-1) comments represent 12,8% of total comments.

Table 14. Comments on Brands' posts Sentiment analysis descriptive data

Sentiment Analysis				
Sentiment Value	Frequency	Percent	Valid Percent	Cumulative Percent
-2	40	3,7	3,7	3,7
-1	99	9,1	9,1	12,8
0	427	39,2	39,2	52,0
1	353	32,4	32,4	84,4
2	170	15,6	15,6	100,0
Total	1089	100,0	100,0	

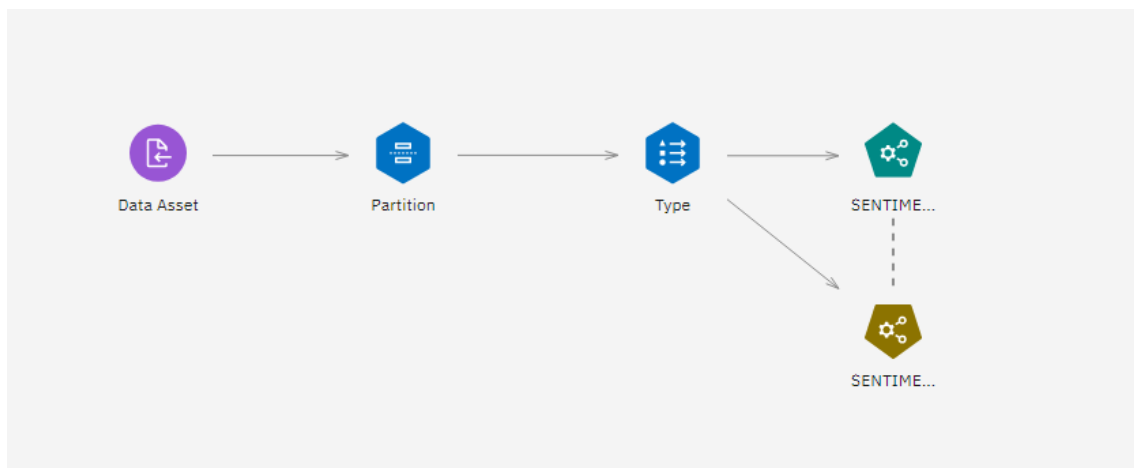
In the following section, we will understand which is the most appropriate Model to analyze this data, in order to answer our research question and understand which of the communication patterns identified lead to more positive sentiments from consumers, by looking at the consumers comments' sentiment values.

3.5 Modeling

After preparing the data in the datasets mentioned above, we are now ready to test which model is more suited to understand which communication patterns lead to higher sentiment scores. For the Modeling step, we will therefore select the technique for testing and analyzing the data. The main objective for this model is to explain the existing data and be able to predict the independent (target) variable for future observations. Considering the goal of this analysis, the required model should be a classification model, since we aim to understand which patterns identified in the Brand posts lead to higher sentiment scores. The most used classification models are decision trees, regressions, neural networks, among others.

To understand which model has the best accuracy to predict sentiment score, we used SPSS Modeler (IBM Watson Studio). This tool offers several modeling methods regarding machine learning, artificial intelligence, and statistics (IBM, 2020). We used the Auto Classifier tool which provides the TOP 5 Models with better accuracy to perform the analysis. Figure 10 identifies the process flow used in SPSS Modeler to perform the Auto Classifier.

Figure 10. SPSS Modeler process flow



Using the dataset prepared on 3.4, we then split the data in the Partition node, setting the training dataset to 70% and the testing set to 30% (Singh et al., 2016). The Type of variables analyzed are identified in Figure 11.

Figure 11. Target and Input Variables analyzed





<input type="checkbox"/>	Field	Measure	Role	Value Mode	Values	Check
<input type="checkbox"/>	abc Partition	Nominal	Partition	Instantiated	1_Training, 2_Testi...	None
<input type="checkbox"/>	# SENTIMEN	Ordinal	Target	Instantiated	-2, -1, 0, 1, 2	None
<input type="checkbox"/>	abc SENTIMEN	Ordinal	None	Instantiated	N, N+, NEU, NONE, ...	None
<input type="checkbox"/>	abc GAME/CHA	Flag	Input	Instantiated	0, 1	None
<input type="checkbox"/>	abc INNOVATI	Flag	Input	Instantiated	0, 1	None
<input type="checkbox"/>	abc CTA	Flag	Input	Instantiated	0, 1	None
<input type="checkbox"/>	abc PURPOSE	Flag	Input	Instantiated	0, 1	None
<input type="checkbox"/>	# FORMAT	Flag	Input	Instantiated	0, 1	None

The Sentiment Value (-2, -1, 0, 1, 2) of the consumer comments analyzed was used as Target variable for the analysis. On the other hand, the identification of post’s Format, CTA, Purpose, Innovation and Game/Challenge were used as input variables. In the case of the Format variable, a result of 0 means that the Post was identified as containing a Static Image, whilst a result of 1 means the Post has the format of the video. For the remaining independent variables, a value of 1 means that said Post contains that communication pattern, whilst a value of 0 means that the Post does not contain that communication pattern. The Sentiment Abbreviation (N+, N, NEU, P, P+) was not considered in the analysis since it represents the same values as the Sentiment Value. We then ran the Auto Classifier analysis, which ranked the four best Models to use considering its predicted accuracy, as shown in Figure 12.

Figure 12. SPSS Modeler Auto Classifier: Models to use ranked by its Accuracy

Auto Classifier - Models ⓘ

TARGET : SENTIMENT VALUE

USE	ESTIMATOR	ACCURACY	BUILD TIME (MINS)	NO. FIELDS USED	ACTIONS
<input checked="" type="checkbox"/>	C&RT	42.901	< 1	5	
<input checked="" type="checkbox"/>	C5.0	42.284	< 1	4	
<input checked="" type="checkbox"/>	XGBoost Tree 1	41.358	< 1	5	
<input checked="" type="checkbox"/>	MLP Neural Network	36.420	< 1	5	

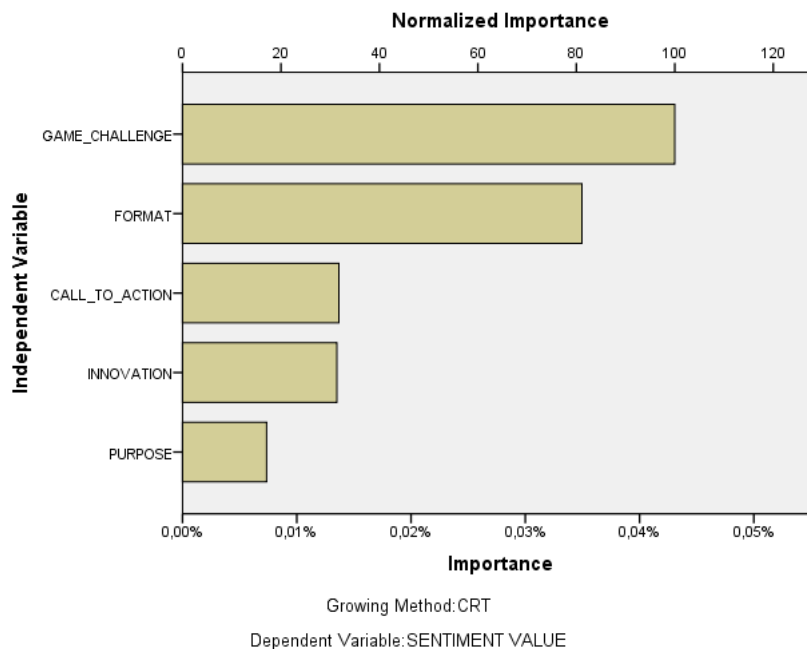
The Classification and Regression Tree node (C&RT) was identified as the best Model to perform the estimation, with an accuracy of 42.90. Decision trees are classification models that use a set of decision rules to predict future observations (Pradhan, 2013). The C&RT “uses recursive partitioning to split the training records into segments with similar output field values” (IBM, 2020). This model examines the “input fields to find the best split, measured by the reduction in an impurity index that results from the split. The split defines two subgroups, each of which is subsequently split into two more subgroups, and so on, until one of the stopping criteria is triggered” (*ibidem*). We used the C&RT analysis to test which communication patterns delivered more positive sentiments. This technique follows the previously mentioned Surucu-balci et al. (2020) work regarding social media posts patterns that influence stakeholder engagement in the container shipping market, where the authors used a Decision tree to categorize social media posts based on their engagement levels.

In the following step of the CRISP-DM methodology, Evaluation, we will understand which communication patterns lead to a higher sentiment score, by performing the C&RT on the data collected and previously prepared, at the same time analyzing the key results.

3.6 Evaluation

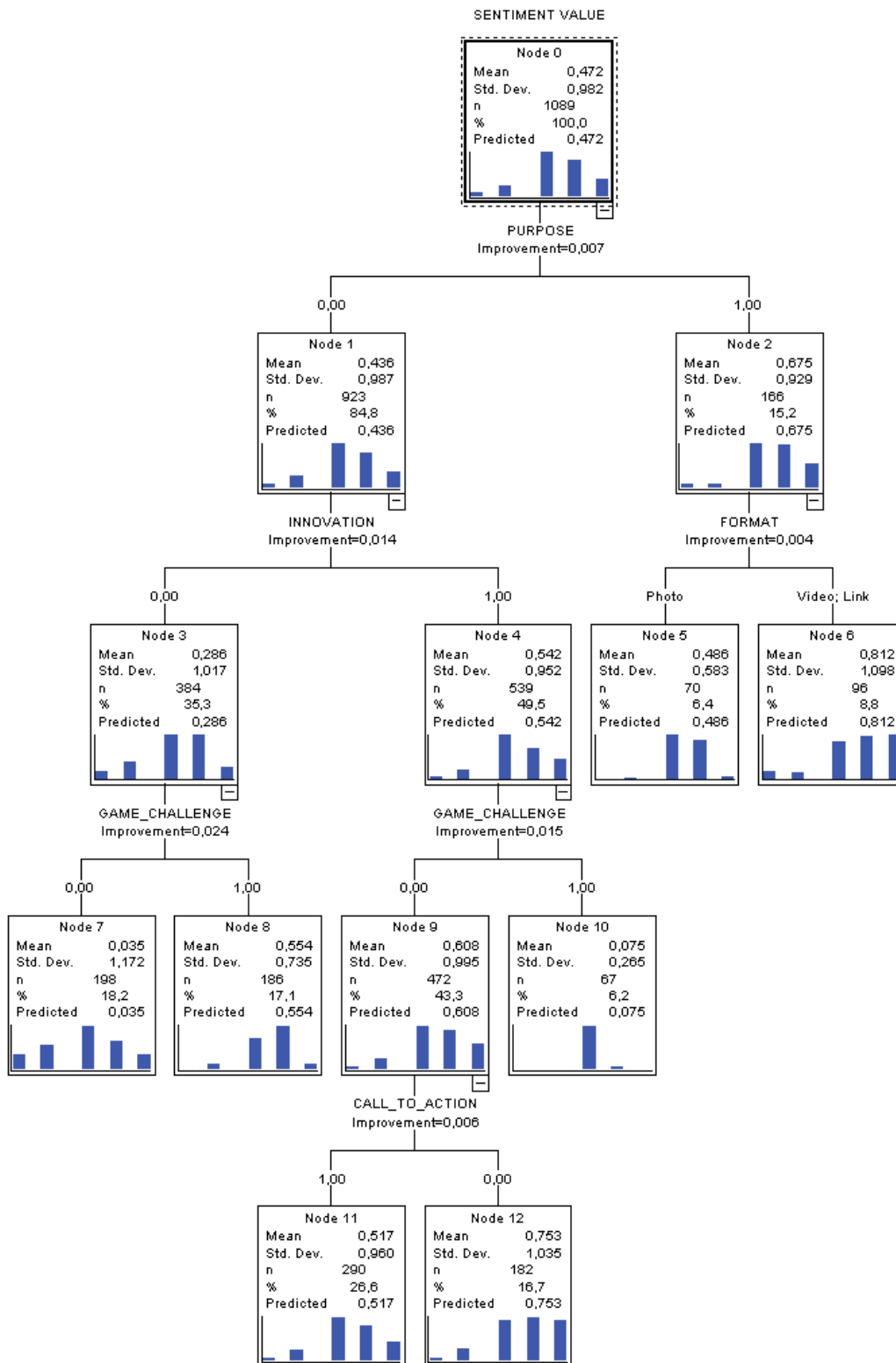
Using the IBM SPSS Statistics version 22, we performed a C&RT analysis to the consumer-brand engagement dataset we collected and prepared from the Unilever Brands Facebook Posts, and respective consumer comments. As previously mentioned, we used Sentiment Score (Sentiment Value) as our dependent variable and Format, Purpose, Call-to-Action, Innovation and Game/Challenge as our independent variables. Figure 13 shows the importance of each variable to predict Sentiment score.

Figure 13. Independent variable importance in predicting Sentiment Score



The pattern of posts containing a Game/Challenge is the most relevant one to predict the sentiment score underlying consumers comments. This means that this pattern is highly correlated with one of the sentiment values, although not necessarily the most positive values. The post’s Format is the second most important variable to predict Sentiment score, followed by Call-to-Action, having an Innovation and, finally, communicating the Brand’s Purpose. In Figure 14, we can see the Decision tree performed to assess which Patterns lead to higher sentiment scores.

Figure 14. Decision Tree: what patterns lead to higher sentiment scores?



As it is possible to see in Figure 14, Purpose was identified as the main variable to positively influence the comments' sentiment. A post containing a communication that includes the brand's purpose, is expected to have comments with an average sentiment of .675, whilst a post that is not conveying the brand's purpose is only expected to generate comments with an average sentiment of .436. The combination of communication that is expected to deliver the most positive results, in terms of sentiment score, is represented in the Node 6, which is the combination of posts that convey the brand's purpose and are in the form of a Video. It is also clear by looking at the blue bars, that this type of combination delivered the most positive results, being the bars to the right related with Positive (+1) and Very positive (+2) sentiments. On the other hand, blue bars to the left of each Node represent the Very Negative (-2) and Negative (-1) sentiments, while the bar in the middle represents the Neutral (0) comments. Table 15 sums up the most relevant nodes to explain a positive sentiment score.

Table 15. Most relevant nodes to positively influence Sentiment Value

Rank	Node	Description	Average Sentiment Score
1st	5	Posts that communicate the brand's purpose and are in a video format.	.812
2nd	12	Posts that do not communicate the brand's purpose, that do communicate a product innovation but do not have any challenge/game or a call-to-action.	.753
3rd	8	Posts that do not communicate the brand's purpose, and do not communicate a product innovation, but instead have a challenge or game for consumers to participate.	.554

The results of this Decision tree indicate that Brand Posts communicating the Brand's Purpose, a Product Innovation and Challenge/Game positively affect sentiment score. Posts Format (Video or Static Image) and Call-to-action also appear to positively influence sentiment score, although on a lower level of significance. Therefore, we performed a factorial ANOVA to test the significance levels of the independent variables. Once again, we entered Sentiment Score as our dependent variable, and the communication patterns under study as our fixed factors (Purpose, Call-to-action, Product Innovation, Game/Challenge and video/image format). We considered a significance

level of .05 as the indicator to not reject the null hypothesis of equal variances ($p > .05$). The results are shown in Table 16. The test conducted reassured the output extracted from the Decision Tree. Posts that communicate Purpose ($p = .003$), Product Innovation ($p = .018$) and a Game/Challenge ($p = .002$) proven to affect Sentiment Score. On the other hand, Call-to-action ($p = .097$) and post's format in either Video or Static ($p = .054$) were not supported to influence Sentiment Score.

Table 16. Factorial ANOVA regarding communication patterns

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	377,197 ^a	17	22,188	26,071	,000
Purpose	7,659	1	7,659	8,999	,003
Call-to-Action	2,352	1	2,352	2,763	,097
Product Innovation	4,760	1	4,760	5,593	,018
Game/Challenge	8,396	1	8,396	9,866	,002
Format	3,171	1	3,171	3,726	,054

Considering the results obtained with this decision tree and the ANOVA test, demonstrated in both Figure 14 and Table 16, we can conclude that communicating Brand Purpose, a Product Innovation and a Challenge/Game does have a positive influence in Sentiment Score. Therefore, we support hypothesis H1, H4 and H5.

On the other hand, this means that a brand post communicating a CTA does not necessarily positively influence Sentiment Score, therefore H2 is not supported. The Format pattern was also not statistically significant, meaning that the fact that the post has a video or a static image is not sufficient to explain a more positive sentiment value associated to consumer's comments. Therefore, and for the same reason, both H3a and H3b are not supported. Although both H2 and H3 were not supported, considering our significance level of .05, both variables have a $p < .1$, which could be considered as statistically significant in a less conservative evaluation. It is also interesting to observe that posts that do not communicate any of the Content patterns identified (Purpose, Product Innovation, Challenge/Game) are the one with the lowest sentiment score, having a predicted average of .035.

3.7 Deployment

This project allows Unilever in Portugal to have a better understanding of its brands engagement with consumers. As far as the authors knowledge goes, the results from this study were not visible for the company until now since a consumer-brand engagement strategy that allows an understanding of consumers sentiment towards the brands online communication was not implemented up until this day. Considering the results presented, there is a need for Unilever in Portugal to include a Sentiment Score Analysis evaluation strategy in its marketing plans. Unilever Brand Managers should integrate the learnings that resulted from this study in the Brands' performance assessment. We propose an on-going three-step approach to the implementation of a Sentiment Score Analysis strategy in Unilever's marketing ways of working, consisting of Tracking, Performance, and Implementation. In this chapter, we will discuss this tree-step approach and how to implement it in the company.

Our proposed approach starts with Tracking. Having tools to track the KPIs for Sentiment Score is essential to gather the data and learnings to adapt the Brands' communication efforts. Unilever currently has a tool that allows the tracking of some of the most important online consumer-brand engagement KPIs that is underused. Unilever uses Hootsuite (www.hootsuite.com) for its consumer-relationship management on social media, but doesn't use the full power of this tool to track engagement performance. Hootsuite is a platform that has integrated Text-Mining and Sentiment Analysis tools that allow companies to have easier access to engagement performance in each of the social media pages the company owns. Because the tools are only used for consumer-relationship management, it is not accessible to all marketing teams which (1) might not necessarily know that the platform exists and (2) might not know how to use it. Unilever should use Hootsuite for the first step, Tracking, by giving access of the platform to the Brand Managers and set up trainings on how to use the platform.

Regarding the second step, Performance, it is of the utmost importance to include CBE KPIs in the scope of Brands performance evaluation. To make analyzing consumer-brand engagement's performance a priority the performance results should be aligned with Brands' targets. Including Sentiment Score in the Brands KPIs, alongside Brand Awareness, Brand Equity and other existing indicators is essential to drive the Marketing

teams to focus on implementing solutions to improve how the consumers perceive Unilever's brands.

For the third step, Implementation, the Brands should adapt the brand's communications according to the findings from this study. Considering that Purpose, Product Innovation and Games/Challenges were identified as the communication patterns that most positively influence consumers sentiments in online consumer-brand engagement, Unilever brands should directly tackle this opportunity, integrating this patterns more often in the brands communication. To gain more insights on the first pattern, Purpose, Brands should also have a clearer understanding of how is Brand Purpose being conveyed to consumers. It should be tested if Brand Purpose is being understood by consumers and if consumers exposed to it show different behaviors in terms of purchase intent and brand advocacy. The authors of this study recommend a specific KPI to be created around Brand Purpose, to evaluate its impact on consumers understanding and shopping behavior.

In this Implementation step, it is important to include a strategy for the brands to actively participate in all consumer interactions. As shown by Colliander et al. (2015), the success of a social media marketing strategy is contingent upon brands also engaging with the consumer, making it a two-way conversation. Using successful patterns as the Brands' Purpose to generate a conversation with consumers, can be a powerful strategy to drive more positive engagement. Baldus et al. (2015) have also shown how consumers that perceive to have an active voice in the brand's development can be more engaged with the brand. This strategy could be implemented when discussing new product Innovations. Being one of the patterns to positively influence consumer's sentiment, Unilever Brands could implement in its communication an open discussion regarding product innovation, asking consumers their opinions of new product launches. While Brands could be gathering valuable insights from consumers, they could also be increasing engagement behavior. The third pattern to demonstrate a positive influence on sentiment score was having a challenge or game where brands ask for consumers to create UGC to get a reward from the brand. This strategy builds upon Malthouse et al. (2016) work, who have proven that UGC increases engagement levels. Games and Challenges promoted by the Brands should be included in the marketing plans, with the intent to be a source of consumer engagement, both in valence and in volume.

Integrating this three-step Sentiment Score Analysis strategy could add value to the existing Marketing Strategy implemented for the Brands. This plan gives Brand Managers

the tools and the actions necessary to integrate a consumer-brand engagement perspective in the Brands' strategy, giving a perspective of the consumers sentiment that was not visible up until now.

4 Conclusion

4.1 Theoretical and managerial contributions

This project aimed to answer the question of *which communication patterns lead to more positive sentiments in Unilever Brands' online consumer-brand engagement?* By studying the CBE data from several Facebook accounts within the Unilever company, we were able to not just provide valuable and concrete inputs to Unilever's management, but also to add on the existing research of online consumer-brand engagement.

In the past decade, Text Mining and Sentiment Analysis has been used to study many industries and companies, with an incidence on hospitality, travel and leisure, e-tailers and other areas or companies with a strategic interest on consumer reviews (Xu and Li, 2016; Shi and Li, 2011; Singh et al., 2016; Hu et al., 2014). As far as the authors know, this is the first study that performed a text mining and sentiment analysis to a massive amount of data from different social media brands of an FMCG corporation with such a different range of brands under study. This study is especially unique given the fact that the company under study, Unilever, competes with brands in multiple categories within the FMCG industry, from ice cream products, to beverages, to beauty and personal care products or home cleaning detergents.

With this study, we demonstrated that Brands communicating its Brand Purpose, i.e. its social responsibility mission, can positively influence its consumer-brand engagement valence. It was also clear that brands communicating a Product Innovation or a Game/Challenge to its consumers generated more positive sentiments than brands not integrating these in their communication. We also demonstrated how brands operating in the same company, and most of the times in the same business categories, can have different sentiment scores.

This project focused on Unilever's CBE behavior reality, aiming to be of value to Unilever's management team to better understand and improve its Brands' engagement with consumers. This project can be valuable in order to increase brand loyalty and to address the problem of high customer switching behavior, since FMCG is typically an industry where customers have a low switching cost to different brands, hence brand loyalty being a valuable weapon to defend market share (Leckie, Nyadzayo, & Johnson, 2016). With this study, we were able to identify which Business Units are over and under performing in terms of sentiment score, whilst understanding which Brands were receiving more positive or negatively feedback from consumers. We were also capable to identify which specific topics were being used by consumers to express negative and positive feelings. This allows Unilever Marketeers to take immediate action on the Brands communication efforts, by adjusting its communication around negatively associated topics and over invest in the matters that the consumers are associating with positive emotions.

We also suggested a three-step approach for Unilever to tackle its current absence of Sentiment Score tracking, performance orientation and implementation. This project gives Unilever's leadership and Brand Managers the tools to not just implement short-term adaptations to its marketing efforts, but also a long-term strategy to use consumer-brand engagement as a possible source of competitive advantage.

4.2 Limitations and future research

This study used Unilever as the reference to test which communication patterns led to more positive sentiments online consumer-brand engagement. This means that only one company and one country were under analysis, since we decided to focus only on the Unilever brands operating in Portugal. Since we are considering only consumers living in Portugal, we might run into conclusions that are partially due to cultural aspects of the population under analysis (Hofstede, 1986), and may not be replicated to other Unilever operations across the world. The main limitation of this thesis is incurring on the risk of providing limited managerial applications for the generic marketing and business environment, since it is focused on a very specific company, and a specific set of communication patterns.

Unilever's communication efforts are generally oriented to deliver the highest reach possible. The company's focus is to build awareness around its brands, making sure its brands are top of mind when the consumer is in the supermarket aisle and must decide of which product to take home. The main objective of Unilever brands has not been to create engagement with its consumers. A clear example of this is the company's level of investment made in Paid TV when compared to Digital investment. This orientation towards reach and not engagement leads to a low number of interactions available to analyze, and therefore a limitation in the sample available for this study, which can incur in a biased analysis.

Future research might want to further develop how sentiment score behaves differently among different FMCG brands operating in the same segments. It would also be interesting to investigate deeper how does brand Purpose impact other elements of CBE, as for example brand love and brand advocacy. It might also be relevant to understand if consumers do associate a brand with the Purpose it stands for, and how does that affect its perception of the brand, considering commonly used indicators as brand equity and brand loyalty. Understanding which patterns influence sentiment score still has much more room to cover. It would be interesting that future research studied how does investment influence valence, i.e., can paid ads drive more positive engagement from the consumers? What other patterns can influence Sentiment Score? Online consumer-brand engagement is a field of study in continuous growth and with much more to explore, as brands increase its investment in its online marketing efforts, and as consumers are more and more connected to the brands.

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6 Annexes

Annex 1. Facebook Posts communication patterns classification

Facebook Post ID	Face book Page	Post Message	FOR MAT	Pur pose	Call-to-Action	Innovation	Game	Nr. Comments
327764087275057_2266018613449585	Dove (PT)	Cólicas que parecem não ter fim à vista? Veja aqui algumas dicas para tranquilizar o bebé.	Video	0	1	0	0	21
327764087275057_2302865409764905	Dove (PT)	Acalmar e adormecer o bebé nem sempre é tarefa fácil, mas damos algumas dicas que a vão ajudar.	Video	0	0	0	0	13
327764087275057_2346824028702376	Dove (PT)	Passatempo Baby Dove “Ganhe uma mala de maternidade Baby Dove”	Image	0	0	0	1	0
327764087275057_2354696394581806	Dove (PT)	Passatempo Baby Dove “Prepare-se para os primeiros meses do seu bebé e ganhe 1 esterilizador de biberons e 1 bomba tira leite.”	Image	0	0	0	1	0
584577094899027_2270612006295519	Rexona (PT)	Rexona men, quanto mais te moves, mais te protege.	Video	1	0	0	0	1
584577094899027_2270609286295791	Rexona (PT)	Rexona, quanto mais te moves, mais te protege.	Video	1	0	0	0	0
327764087275057_2364528553598590	Dove (PT)	Estimule o desenvolvimento do seu bebé com as atividades que lhe sugerimos, e tire maior partido do tempo que passam juntos :)	Video	0	1	0	0	4
175953782428858_2285240401500175	Axe Portugal	Novo Axe Leather & Cookies, uma colisão de fragrâncias improvável que não deveria resultar, mas que resulta! Atravete a experimentar!	Video	0	1	1	0	10
327764087275057_2421477121237066	Dove (PT)	Microbioma? É a camada viva protetora da sua pele. Não se vê, mas está lá para proteger a sua pele. Dove, com agentes de limpeza 100% suaves, sem sulfatos e com um pH equilibrado, hidrata e limpa a sua pele ao mesmo tempo que é delicado para o microbioma, ajudando a mantê-lo :)	Video	0	0	0	0	0
327764087275057_2318565154861597	Dove (PT)	Este Natal ofereça um dos nossos gift packs e dê a quem mais ama todos os ingredientes para uma pele ainda mais bonita e saudável :) Feliz Natal!	Image	0	1	0	0	9
175953782428858_2302071966483685	Axe Portugal	Desafiámos o Windoh a experimentar a colisão improvável do Novo Axe Leather & Cookies, que resulta na perfeição. O Windoh que o diga! 😊	Video	0	0	1	0	2
175953782428858_2320966517927563	Axe Portugal	Já experimentaste o novo Axe Collision Leather & Cookies? Uma colisão de fragrâncias que não deixa ninguém indiferente, principalmente ela. 😊	Video	1	1	1	0	13
327764087275057_2072722199692556	Dove (PT)	A desesperar com o nascimento dos primeiros dentes do seu bebé? Veja aqui algumas dicas sobre como acalmar os	Video	1	1	0	0	1

		sintomas e cuidar dos dentes do seu filho desde o primeiro dia J							
1759537824288 58_2335083466 515868	Axe Portugal	O RicFazeres e o Daizer testaram o novo Axe Leather & Cookies e... ficaram on fire! 🤖 Quereres saber porquê? Descobre aqui. 😊	Video	0	1	1	0		34
1443392357356 69_1325070900 995824	Lipton (PT)	Já experimentou as novas variedades de Lipton BIO? 100% orgânicas e naturalmente deliciosas! #LiptonBIO #LimãoGengibre #FrutosVermelhos #CháVerde	Image	0	0	1	0		0
1137344253085 64_2592049520 810363	Ben & Jerry's (PT)	Para as noites a ver filmes no sofá, para os fins de semana a ver séries ou... para qualquer ocasião que peça Ben & Jerry's! :D Descobre Sofa So N'ice, um delicioso gelado Ben & Jerry's de caramelo com brownies de chocolate, cookies de chocolate e caramelo salgado!	Video	0	1	1	0		35
1214330978941 71_2133151323 388995	Lipton Ice Tea (PT)	(Post with no description)	Image	0	1	1	0		0
2901084244501 69_1904332796 361049	Carte D'Or (PT)	Descubra o sabor do novo Carte D'Or cheesecake caramelo salgado e deixe-se envolver por esta combinação de sabores irresistível. Et voilà!	Video	0	1	1	0		80
1759537824288 58_2356958800 995001	Axe Portugal	Mantém-te fresco e perfumado com o novo gel de banho Axe Collision Leather & Cookies. Atreve-te a experimentar!	Video	0	1	1	0		25
5857548381190 58_2594318653 929323	Surf Detergente para Roupa	(Post with no description)	Image	0	0	0	0		0
5857548381190 58_2594565113 904677	Surf Detergente para Roupa	Nunca é tarde para fazer Surf! O otimismo de Surf faz vibrar o teu dia e a tua roupa! #vaisfazersurf	Video	1	0	0	0		17
5857548381190 58_2594569743 904214	Surf Detergente para Roupa	Fazer Surf é para a vida! O otimismo de Surf cuida do teu dia e da tua roupa! #vaisfazersurf	Video	1	0	0	0		3
5857548381190 58_2594581860 569669	Surf Detergente para Roupa	Quem faz Surf, faz o ano inteiro! O otimismo de Surf dá mais cor ao teu dia e à tua roupa! #vaisfazersurf	Video	1	0	0	0		27
1214330978941 71_2142289305 808530	Lipton Ice Tea (PT)	Descobre o sabor delicioso de Lipton chá verde. Leve, refrescante e baixo em calorias.	Video	0	1	1	0		1
2241870877690 51_1063770447 144040	Casa Cif (PT)	Com Cif, diga adeus à sujidade e olá à beleza de viver num mundo mais limpo e feliz! :)	Video	1	1	0	0		23

3277640872750 57_2500067646 711346	Dove (PT)	É preciso Força para Vencer, mas é preciso Cuidado para ser um Vencedor. Dove Men+Care acredita que os homens do futuro sabem que têm no Cuidado uma fonte de Força. Desta forma, associamo-nos ao maior festival de Rugby juvenil da Europa e convidamos todas as Famílias a viver um fim de semana cheio de Desporto e Diversão nos dias 13 e 14 de Abril, no Estádio Universitário de Lisboa. Vamos ter também connosco Lewis Moody MBE, ex-jogador e internacional pela seleção de Inglaterra, para entregar um prémio ao jogador que melhor refletir os valores de Desportivismo, neste desporto de Força. Fiquem atentos às páginas Portugal Rugby Youth Festival e Lewis Moody MBE para mais novidades! Vemo-nos por lá? É já amanhã!	Image	1	1	0	0	0
1545303965740 114_232600036 1003800	Maizena	Páscoa é sinónimo de doces deliciosos, e a nossa Pavlova Ninho, com merengue e chantilly, não é exceção!	Video	0	0	0	0	23
1214330978941 71_2152442888 126505	Lipton Ice Tea (PT)	(Post with no description)	Image	0	0	0	0	0
5857548381190 58_2609301205 764401	Surf Detergente para Roupa	(Post with no description)	Image	0	0	0	0	5
1450308201850 011_224320768 5893388	TRESEmmé Portugal	Com dias tão cheios e uma rotina corrida, até a super Maria Botelho Moniz precisa de uma solução prática entre lavagens... O champô seco TRESEmmé remove a oleosidade de maneira rápida e eficaz. É aquele amigo para todas horas! É só aplicar, massajar e pentear! #FAZPORTI	Image	0	0	0	0	0
1450308201850 011_224574261 8973228	TRESEmmé Portugal	Todas nós temos aqueles bad hair days, em que o cabelo precisa de uma ajuda para ficar no ponto. O champô seco TRESEmmé é uma solução prática entre lavagens, que te dá a sensação de cabelo limpo, com movimento e volume em poucos minutos. Este já é um dos aliados da Sofia Arruda e vai continuar a ser depois do bebé nascer. :) #FAZPORTI	Image	0	0	0	0	0
1695138654069 457_225200323 5049660	Pure Leaf (PT)	(Post with no description)	Image	0	0	0	0	0
1695138654069 457_224933440 8649876	Pure Leaf (PT)	Para ti, que gostas de usufruir das coisas boas da vida, temos exatamente aquilo de que precisas: Pure Leaf, Chá Frio Biológico. As melhores folhas de chá preto argentino com limão da Sicília, pêssego do Mediterrâneo ou hortelã de Marrocos. Uma experiência única, para ser saboreada com tempo.	Video	0	0	1	0	14
1443392357356 69_1345864132 249834	Lipton (PT)	A preparar o seu corpo para o verão? #HáUmCháParaIsso Lipton Silhueta com Cavalinha e um toque de gengibre e erva-	Image	0	0	1	0	11

		príncipe!! #LiptonSilhueta #Cavalinha #OperaçãoVerão2019						
1759537824288 58_2389034291 120785	Axe Portu gal	OTiagovski testou o novo Axe Leather & Cookies e... o improvável aconteceu. 😊 Experimenta tu também e deixa-te surpreender.	Video	0	1	1	0	2
3277640872750 57_2519381641 446613	Dove (PT)	É preciso Força para Vencer, mas é preciso Cuidado para ser um Vencedor. Dove Men+Care esteve no Portugal Rugby Youth Festival enquanto patrocinador oficial pelo terceiro ano. Foram dias em que testemunhámos Força, Cuidado e muito Desporto de qualidade. O nosso embaixador Lewis Moody MBE, ex-capitão de Inglaterra e Campeão do Mundo, entregou o prémio "Spirit of Rugby" à equipa U19 feminina dos Melbourne Kangaroos Rugby, que atravessaram o mundo para vir trazer uma atitude e valores de excelência a este Festival. Vejam as fotografias! Dove Men+Care, Cuidar Faz-te Mais Forte!	Imag e	1	1	0	0	0
1451859408367 199_239321886 4231244	LINIC	REGULAMENTO DO PASSATEMPO Linic & Fitness Hut	Imag e	0	0	0	1	0
1451859408367 199_239322622 7563841	LINIC	Tens o que é preciso para ser o n.º1? Então este passatempo é para ti! Linic e Fitness Hut têm 5 mensalidades para te oferecer, num clube à tua escolha, e um cabaz de produtos. Para participar só tens de nos deixar uma frase original, que inclua as palavras "Linic", "Fitness Hut" e "uso diário" e que nos conte o que é preciso para ser o n.º1. Regulamento em https://bit.ly/2V3ySFB	Imag e	0	1	0	1	4
1759537824288 58_2398151053 542442	Axe Portu gal	Whoa, whoa, whoa! Porque até o Iron Man usa Axe para salvar o mundo, temos 10 bilhetes duplos para te oferecer e ires ver o filme "Avengers: Endgame". Mas calma, podes continuar chill, para seres um dos vencedores não precisas de ser um super herói, só tens de: - Provar que és um verdadeiro fã de Axe e de Avengers e ser um dos 10 primeiros a responder corretamente às nossas perguntas; - Dizer-nos em que cinema gostavas de usufruir do prémio – consulta aqui a lista: http://bit.ly/2WeZH6r . Perguntas: 1. O novo Axe Ice Chill consegue baixar a tua temperatura corporal até quantos graus? Damos-te uma ajuda aqui: http://bit.ly/2ZItS8b . A) 5º B) 6º C) 7º 2. No filme " Vingadores: Guerra Infinita", quando Thanos estalou os dedos qual destas personagens não morreu? A) Dr. Stranger B) Spider Man C) Viúva Negra Participa e desfruta, porque sabes? You're hotter when you're chill!	Imag e	0	1	1	1	60
1545303965740 114_233527888 3409281	Maiz ena	As melhores surpresas são feitas com amor, e esta Tarte de Amêndoa é a surpresa perfeita para adoçar o Dia da Mãe!	Video	0	0	0	0	4

3277640872750 57_2539859159 398861	Dove (PT)	Vais deixar que ele continue a roubar o teu Dove? A pele do homem é diferente da tua, é por isso que Dove Men+Care hidrata a pele dele, enquanto Dove nutre a tua!	Image	0	0	0	0	14
5857548381190 58_2644087115 619143	Surf Detergente para Roupa	Novo Surf inspirado na natureza vai provocar uma verdadeira explosão de Perfume de Coco!	Video	0	0	1	0	159
1451859408367 199_239926503 0293294	LINIC	Tens o que é preciso para ser o n.º1? Então este passatempo é para ti! Linic e Fitness Hut têm 5 mensalidades para te oferecer, num clube à tua escolha, e um cabaz de produtos. Para participar só tens de nos deixar uma frase original, que inclua as palavras "Linic", "Fitness Hut" e "uso diário" e que nos conte o que é preciso para ser o n.º1. Regulamento em https://bit.ly/2V3ySFB	Image	0	1	0	1	16
4520563648648 62_2719073748 163101	Magnum (PT)	Iris Apfel, um verdadeiro icone da moda, é a nova Embaixadora Magnum #NeverStopPlaying	Video	1	0	0	0	0
4520563648648 62_2719075758 162900	Magnum (PT)	Sê fiel ao teu prazer. Apresentamos-te a nossa Embaixadora Magnum. Iris Apfel. Uma mulher que cria as suas próprias regras. #NeverStopPlaying	Video	1	0	0	0	0
4520563648648 62_2719080904 829052	Magnum (PT)	Conhece a nossa Embaixadora Magnum mais divertida. Iris Apfel. #NeverStopPlaying	Video	1	0	0	0	0
3277640872750 57_2543217512 396359	Dove (PT)	98% dos pediatras recomenda Baby Dove para cuidar da pele do recém-nascido desde o primeiro dia. E você, já confia em Baby Dove para cuidar da pele do seu bebé?	Image	0	0	0	0	23
1214330978941 71_2185494098 154717	Lipton Ice Tea (PT)	Baixo em calorias e sempre delicioso, escolhe Lipton Chá Verde para te refrescares nos dias quentes que se avizinham!	Video	0	1	1	0	5
1759537824288 58_2413181115 372769	Axe Portugal	Até a salvar o mundo o Iron Man cheira bem. 😊 Experimenta o novo Axe Ice chill! Baixa a temperatura em 6 graus. Porque sabes? You're hotter when you're chill.	Image	0	1	1	0	1
1450308201850 011_222831413 0716077	TRESEMME é Portugal	TRESemme Liso Keratina ajuda-te a conseguir um liso perfeito, brilhante e sem frizz. #FAZPORTI e pelo teu cabelo.	Video	1	0	1	0	2
3277640872750 57_2547426668 642110	Dove (PT)	70% das mulheres não se sentem representadas nas campanhas de publicidade. Por isso, Dove juntou-se a mulheres de todo o mundo para criar o projeto #MostremNos - a primeira biblioteca de fotografias de mulheres reais, publicamente acessível e disponível para publicidade, para acabar com os estereótipos de beleza. Saiba mais sobre este projeto em dove.com/mostremnos e associe-se a esta iniciativa!	Video	1	1	0	0	0

3277640872750 57_2547421908 642586	Dove (PT)	E se fosse possível acabar com os estereótipos de beleza no mundo? Dove criou o projeto #MostremNos - a primeira biblioteca de fotografias com uma representação real das mulheres, publicamente acessível. Juntos podemos criar a mudança que queremos ver no mundo! Saiba mais em dove.com/MostremNos	Video	1	1	0	0	1
1450308201850 011_222831335 0716155	TRESem é Portu gal	TRESem é Liso Keratina ajuda-te a conseguir um liso perfeito, brilhante e sem frizz. #FAZPORTI e pelo teu cabelo.	Video	1	0	1	0	6
1443392357356 69_1361147704 054810	Lipton (PT)	(Post with no description)	Image	0	0	0	0	0
1443392357356 69_1361148014 054779	Lipton (PT)	(Post with no description)	Image	0	0	0	0	0
1443392357356 69_1361148340 721413	Lipton (PT)	(Post with no description)	Image	0	0	0	0	0
4520563648648 62_2736617346 408741	Magnum (PT)	Juntamo-nos ao trio mais disruptivo de sempre: Lili Caneças, Rui Maria Pêgo e Carolina Loureiro são os novos rostos Magnum. Este trio imparável respira a diversão, a indulgência e o prazer verdadeiro de Magnum. #MagnumCannes #NeverStopPlaying #SêFielAoPrazer	Video	0	0	0	0	52
4520563648648 62_2739788572 758285	Magnum (PT)	Luzes, câmara, ação! 📷 📱 📺 Cannes, chegámos! A festa vai começar em breve, fica desse lado para não perderes nada. 🍷 #MagnumCannes #NeverStopPlaying #SêFielAoPrazer	Video	0	1	0	0	8
4520563648648 62_2741983445 872131	Magnum (PT)	Descobre aqui alguns dos melhores momentos de Cannes. Conhece as criações do Rui e da Lili no dipping station, onde puderam dar asas à criatividade, brincar com os vários toppings e criar versões únicas do seu Magnum preferido. 🍷 Têm ambos um aspeto delicioso, mas qual deles gostavas de poder provar? #MagnumCannes #NeverStopPlaying #SêFielAoPrazer	Image	0	1	0	0	3
4520563648648 62_2742011549 202654	Magnum (PT)	Divertida, arrojada e irreverente. Cheia de brilho, glamour e elegância. Assim foi mais uma edição da Festa Magnum em Cannes. Fica a par dos momentos mais marcantes da noite. #MagnumCannes #NeverStopPlaying #SêFielAoPrazer	Image	0	1	0	0	22
1695138654069 457_226770215 3479768	Pure Leaf (PT)	Há combinações inesquecíveis: chá preto biológico Argentino com pêssego do Mediterrâneo, ou limão da Sicília, ou menta de Marrocos. Saboreia-as... muito lentamente.	Image	0	1	1	0	10
2241870877690 51_1089779601 209791	Casa Cif (PT)	Novos sprays Cif Nature, para Cozinha e Casa de Banho! Experimente a mesma eficácia de sempre, agora mais natural 😊	Video	0	1	1	0	33

1759537824288 58_2436498489 707698	Axe Portugal	⚠️ Alerta Passatempo ⚠️ A Axe dá-te Axecess ao Worten Game City. 😊 Mostra-nos como ficas chill com o novo Axe Ice Chill, através de uma fotografia com um dos produtos desta nova gama, nos comentários desta publicação. Temos 10 bilhetes duplos (5 bilhetes duplos diários) para oferecer às 10 participações mais criativas e podes concorrer até ao próximo dia 26 de maio. Solta a tua veia mais divertida e habilita-te a ser um dos vencedores. 😊 Diverte-te sem pressões, porque sabes?! You're hotter when you're chill. Consulta o regulamento aqui: https://docdro.id/6ilVJkn .	Imag e	0	1	1	1	9
3277640872750 57_2568620596 522717	Dove (PT)	E se fosse possível acabar com os estereótipos de beleza no mundo? Dove criou o projeto #MostremNos - a primeira biblioteca de fotografias com uma representação real das mulheres, publicamente acessível. Juntos podemos criar a mudança que queremos ver no mundo! Saiba mais em dove.com/MostremNos	Imag e	1	1	0	0	20
1759537824288 58_2450708021 620078	Axe Portugal	Queres ir a Amesterdão conhecer o DJ nº1 do mundo? A Axe em parceria com a Worten e a TAP Air Portugal dá-te a oportunidade de conhecer pessoalmente o Martin Garrix num Meet & Greet exclusivo. Envia-nos um vídeo criativo usando uma música do Martin Garrix e o novo Axe Martin Garrix. Nota: Disponível já este fim de semana na Worten Game City (Cordoaria Nacional, Lisboa) e em breve nas lojas Worten. Consulta o regulamento aqui: https://docdro.id/f9GfmdZ .	Imag e	0	1	0	1	0
1879705852274 561_368281514 026887	Simple Skincare (PT)	Os novos Simple Mini chegaram! Em formato Mini, prático e conveniente para os lewares sempre contigo!	Video	0	0	1	0	5
3327373736023 33_1029181190 624611	Hellmann's (PT)	A Rota Hellmann's está de volta! E este ano aos hambúrgueres juntam-se os petiscos e outras delícias! De 1 de junho a 31 de julho, tira uma foto num dos restaurantes aderentes, publica no Instagram e habilita-te a ser o vencedor diário de uma refeição dupla. Vê mais em http://www.hellmanns.pt/artigo/media/169809/rota-hellmanns	Video	0	1	0	0	6
1214330978941 71_2236464549 724338	Lipton Ice Tea (PT)	Experimenta Lipton Chá Verde Matcha, com gengibre e erva-príncipe, uma combinação baixa em calorias e deliciosamente refrescante!	Video	0	1	1	0	18
1759537824288 58_2463123903 711823	Axe Portugal	O RicFazer vai estar no Moche XL Esports e nós damos-te a oportunidade de ir também. Queres conhecê-lo num meet & greet exclusivo? Para seres um dos vencedores e teres AXEcess a esta experiência só tens de nos dizer porque é que mereces ser um dos sortudos. As 8	Imag e	0	1	0	1	142

		participações mais criativas ganham um bilhete para o dia 15.06 e a oportunidade de jogar FIFA 2019 com o Ric. 😊 Sabe mais aqui: https://docdro.id/3reFjZK .						
1450308201850 011_226027581 7519908	TRESEmm é Portugal	TRESEmmé Botanique Styling. A nova gama de finalizadores TRESEmmé, com ingredientes naturais. Cabelo com estilo, naturalmente. #FAZPORTI	Video	1	0	1	0	0
1450308201850 011_226026721 0854102	TRESEmm é Portugal	Consegue um cabelo sem oleosidade e um look renovado, com o novo Champô Seco Botanique. Com agentes de limpeza 100% naturais, da gama TRESEmmé Botanique Styling. #FAZPORTI	Video	0	0	1	0	0
1450308201850 011_226190894 4023262	TRESEmm é Portugal	Consegue caracóis definidos e um cabelo com look natural, com o novo Creme de Pentear Caracóis. Com água de coco e cato, da gama TRESEmmé Botanique Styling. #FAZPORTI	Video	0	0	1	0	8
1450308201850 011_226026336 0854487	TRESEmm é Portugal	Consegue caracóis definidos com a nova Mousse Caracóis. Com água de coco e cato, da gama TRESEmmé Botanique Styling. #FAZPORTI	Video	0	0	1	0	23
1450308201850 011_226026612 4187544	TRESEmm é Portugal	Consegue um cabelo sem frizz e com look natural, com o novo Spray Anti-Secador. Com água de coco e cato, da gama TRESEmmé Botanique Styling. #FAZPORTI	Video	0	0	1	0	1
1695138654069 457_228975039 1274944	Pure Leaf (PT)	Pure Leaf é feito com os melhores ingredientes de origem biológica, para te proporcionar momentos de puro prazer! Mmm! Vais deixar que agarrem o último copo?	Video	0	1	0	0	12
9035015264430 28_2121330767 993425	Soler o	(Post with no description)	Image	0	0	0	0	0
9035015264430 28_2121331541 326681	Soler o	(Post with no description)	Image	0	0	0	0	0
1879705852274 561_242214319 1364155	Simple Skincare (PT)	(Post with no description)	Image	0	0	0	0	0
1759537824288 58_2495748750 449338	Axe Portugal	A melhor forma de conquistar? Segue o conselho do Windoh e sê tu próprio! :) It's time to chill com o novo Axe Ice Chill, que baixa a tua temperatura até 6°. O ideal para o verão! Porque sabes? You're hotter when you're chill. ;)	Video	1	0	1	0	4
3277640872750 57_2634124136 639029	Dove (PT)	(Post with no description)	Image	0	0	0	0	0
9035015264430 28_2128583413 934827	Soler o	Arrefece os dias mais quentes com poucas calorias e com a fruta mais fresca. Frutos vermelhos 🍓, manga 🍌 ou maçã verde 🍏, qual é que vais provar primeiro?	Video	0	1	1	0	16

175953782428858 2513394108684802	Axe Portugal	⚠️ ALERTA PASSATEMPO ⚠️ Queres ir a Amesterdão conhecer o DJ nº1 do mundo? A Axe, em parceria com a Worten e com a TAP Air Portugal, dá-te a oportunidade de conhecer pessoalmente o Martin Garrix num Meet & Greet exclusivo. Sabe como participar no nosso Instagram: @axe.portugal Lê o regulamento aqui: https://docdro.id/DoR6D92 .	Video	0	1	0	1	4
121433097894171 2292855294085263	Lipton Ice Tea (PT)	Porque adoramos o Sol? Porque torna o nosso Lipton Ice Tea ainda mais delicioso e refrescante, mas leve em calorias!	Video	0	0	0	0	3
175953782428858 2526087240748822	Axe Portugal	⚠️ ALERTA PASSATEMPO ⚠️ Queres ir a Amesterdão conhecer o DJ nº1 do mundo? A Axe, em parceria com a Worten e com a TAP Air Portugal, dá-te a oportunidade de conhecer pessoalmente o Martin Garrix num Meet & Greet exclusivo. Participa no nosso Instagram: http://bit.ly/InstagramAxePortugal	Video	0	1	0	1	11
121433097894171 2292966377407488	Lipton Ice Tea (PT)	Já conheces Lipton Chá Verde? É delicioso e baixo em calorias! Vais conseguir resistir-lhe?	Video	0	0	1	0	1
121433097894171 2292951434075649	Lipton Ice Tea (PT)	Experimenta o novo Lipton Ice Tea de Pêssego! Sem açúcar, sem calorias, o mesmo sabor!	Video	0	1	1	0	4
1695138654069457 2313149928934990	Pure Leaf (PT)	A bebida perfeita para acompanhar os almoços leves e frescos deste verão? Pure Leaf Chá Frio Biológico! Escolhe o teu favorito e desfruta!	Image	0	1	1	0	12
121433097894171 2327156220655170	Lipton Ice Tea (PT)	Refresca-te com Lipton Ice Tea, mas não te esqueças de colocar a tua embalagem no ecoponto amarelo 😊 Basta um pequeno gesto para transformarmos o mundo.	Video	0	0	0	0	0
584577094899027 2584164428273607	Rexona (PT)	Este passatempo vai-te pôr a dançar. 🕺 Quanto mais Danças, quanto mais te Moves... mais Rexona te protege! 🕺 És fã dos NowUnited e adoravas experimentar o produto que temos em parceria com eles (disponível atualmente apenas no Brasil)? Para isso só tens de: escrever uma frase criativa com as palavras "Rexona" e "Now United" e as 5 melhores ganham. Temos hoodies e desodorizantes Rexona x Now United para te oferecer. Põe a tua veia criativa a mexer e tenta a tua sorte. 😊 Consulta o regulamento aqui: http://bit.ly/NowUnitedRexona #danca maisvive mais #mexetemasvive mais	Image	1	1	0	1	12
1879705852274561 2449633891948418	Simple Skincare (PT)	Mima a tua pele com o novo pack máscaras Simple! Apenas 2,95€. Compra já aqui. 🖱️	Image	0	1	1	0	49

5845770948990 27_2588107247 879325	Rexona (PT)	Este passatempo vai-te pôr a dançar. 🕺 Quanto mais Danças, quanto mais te Moves... mais Rexona te protege! 🕺 És fã dos Now United e adoravas experimentar o produto que temos em parceria com eles (disponível atualmente apenas no Brasil)? Para isso só tens de: escrever uma frase criativa com as palavras "Rexona" e "Now United" e as 5 melhores ganham. Temos hoodies e desodorizantes Rexona x Now United para te oferecer. Põe a tua veia criativa a mexer e tenta a tua sorte. 😊 Consulta o regulamento aqui: http://bit.ly/RexonaNU #dancamaisvivemais #mexetemaisvivemais	Image	1	1	0	1	51
3327373736023 33_1072476866 295043	Hellmann's (PT)	A comida é demasiado importante para ser desperdiçada e por isso Hellmann's, numa ação no Mercado de Alvalade, mostra que com verdadeira maionese, nada de desperdiça, tudo se aproveita. Veja como foi em: http://maissabormenosdesperdicio.pt/	Video	1	1	0	0	1
1214330978941 71_2350341641 669961	Lipton Ice Tea (PT)	Experimenta Lipton Chá Verde Matcha, com gengibre e erva-príncipe, uma combinação baixa em calorias e deliciosamente refrescante!	Video	0	1	1	0	5
1695138654069 457_231315126 5601523	Pure Leaf (PT)	Calor abrasador? Está aberta a época dos mocktails! Junta ao teu Pure Leaf Chá Frio Biológico de Hortelã um pouco de sumo de lima e remata com folhas de hortelã e manjeriço a gosto! Uma receita leve e refrescante, para saborear até à última gota 😊	Image	0	1	1	0	1
4520563648648 62_2990401064 363700	Magnum (PT)	(Post with no description)	Image	0	0	0	0	0
5845770948990 27_2650752464 948136	Rexona (PT)	És fã de futebol e vibras com bola? ⚽ Então não podes perder esta oportunidade: vamos levar duas pessoas a conhecer o estádio do Atlético de Madrid e alguns dos maiores jogadores do mundo. 😊 Para te habilitares a ser um dos sortudos move-te como um pro e mostra-nos, num vídeo, os melhores truques que sabes fazer com uma bola de futebol. Fácil, não é? 😊 Inspira-te com os melhores e mostra-nos o que sabes fazer: http://bit.ly/MoveLikeaPro . Consulta todas as informações no nosso regulamento: http://bit.ly/RegulamentoMoveLikeaPro .	Image	0	1	0	1	16

*Annex 2. Facebook Posts Sentiment analysis descriptive data per post***Report**

Sentiment

	Mean	N	Std. Deviation
1. ORIGINAL POST MESSAGE			
⚠ Alerta Passatempo ⚠ A Axe dá-te Axecess ao Worten Game City. 😊 Mostra-nos como ficas chill com o novo Axe Ice Chill, através de uma fotografia com um dos produtos desta nova gama, nos comentários desta publicação. Temos 10 bilhetes duplos (5 bilhetes duplos diários) para oferecer às 10 participações mais criativas e podes concorrer até ao próximo dia 26 de maio. Solta a tua veia mais divertida e habilita-te a ser um dos vencedores. 😊 Diverte-te sem pressões, porque sabes?! You're hotter when you're chill. Consulta o regulamento aqui: https://docdro.id/6ilVJkn .	,333	3	1,5275
⚠ ALERTA PASSATEMPO ⚠ Queres ir a Amesterdão conhecer o DJ nº1 do mundo? A Axe, em parceria com a Worten e com a TAP Air Portugal, dá-te a oportunidade de conhecer pessoalmente o Martin Garrix num Meet & Greet exclusivo. Participa no nosso Instagram: http://bit.ly/InstagramAxePortugal	-,167	6	,4082
⚠ ALERTA PASSATEMPO ⚠ Queres ir a Amesterdão conhecer o DJ nº1 do mundo? A Axe, em parceria com a Worten e com a TAP Air Portugal, dá-te a oportunidade de conhecer pessoalmente o Martin Garrix num Meet & Greet exclusivo. Sabe como participar no nosso Instagram: @axe.portugal Lê o regulamento aqui: https://docdro.id/DoR6D92 .	-,182	11	,6030
98% dos pediatras recomenda Baby Dove para cuidar da pele do recém-nascido desde o primeiro dia. E você, já confia em Baby Dove para cuidar da pele do seu bebé?	-,250	4	,5000
A bebida perfeita para acompanhar os almoços leves e frescos deste verão? Pure Leaf Chá Frio Biológico! Escolhe o teu favorito e desfruta!	,889	18	1,0786
A comida é demasiado importante para ser desperdiçada e por isso Hellmann's, numa ação no Mercado de Alvalade, mostra que com verdadeira maionese, nada de desperdiça, tudo se aproveita. Veja como foi em: http://maissabormenosdesperdicio.pt/	,889	9	,7817
A desesperar com o nascimento dos primeiros dentes do seu bebé? Veja aqui algumas dicas sobre como acalmar os sintomas e cuidar dos dentes do seu filho desde o primeiro dia ☐	2,000	1	.
A melhor forma de conquistar? Segue o conselho do Windoh e sê tu próprio! :) It's time to chill com o novo Axe Ice Chill, que baixa a tua temperatura até 6°. O ideal para o verão! Porque sabes? You're hotter when you're chill. ;)	,000	1	.
A preparar o seu corpo para o verão? #HáUmCháParalssso Lipton Silhueta com Cavalinha e um toque de gengibre e erva-príncipe!! #LiptonSilhueta #Cavalinha #OperaçãoVerão2019	-,500	4	1,0000
	,500	6	,8367

A Rota Hellmann's está de volta! E este ano aos hambúrgueres juntam-se os petiscos e outras delícias! De 1 de junho a 31 de julho, tira uma foto num dos restaurantes aderentes, publica no Instagram e habilita-te a ser o vencedor diário de uma refeição dupla. Vê mais em http://www.hellmanns.pt/artigo/media/1169809/rota-hellmanns	,333	6	,5164
Acalmar e adormecer o bebé nem sempre é tarefa fácil, mas damos algumas dicas que a vão ajudar.	,231	13	1,3634
Arrefece os dias mais quentes com poucas calorias e com a fruta mais fresca. Frutos vermelhos 🍓, manga 🍌 ou maçã verde 🍏, qual é que vais provar primeiro?	,538	13	1,0500
As melhores surpresas são feitas com amor, e esta Tarte de Amêndoa é a surpresa perfeita para adoçar o Dia da Mãe!	1,500	4	,5774
Até a salvar o mundo o Iron Man cheira bem. 😊 Experimenta o novo Axe Ice chill! Baixa a temperatura em 6 graus. Porque sabes? You're hotter when you're chill.	,000	1	.
Baixo em calorias e sempre delicioso, escolhe Lipton Chá Verde para te refrescares nos dias quentes que se avizinham!	,400	5	,8944
Calor abrasador? Está aberta a época dos mocktails! Junta ao teu Pure Leaf Chá Frio Biológico de Hortelã um pouco de sumo de lima e remata com folhas de hortelã e manjerição a gosto! Uma receita leve e refrescante, para saborear até à última gota 😊	1,000	1	.
Cólicas que parecem não ter fim à vista? Veja aqui algumas dicas para tranquilizar o bebé.	,476	21	,9284
Com Cif, diga adeus à sujidade e olá à beleza de viver num mundo mais limpo e feliz! :) Consegue caracóis definidos com a nova Mousse Caracóis. Com água de coco e cato, da gama TRESemmé Botanique Styling. #FAZPORTI	1,500	18	,7071
Consegue caracóis definidos e um cabelo com look natural, com o novo Creme de Pentear Caracóis. Com água de coco e cato, da gama TRESemmé Botanique Styling. #FAZPORTI	,857	7	,8997
Consegue um cabelo sem frizz e com look natural, com o novo Spray Anti-Secador. Com água de coco e cato, da gama TRESemmé Botanique Styling. #FAZPORTI	,000	1	.
Desafiámos o Windoh a experimentar a colisão improvável do Novo Axe Leather & Cookies, que resulta na perfeição. O Windoh que o diga! 😊	-1,500	2	,7071
Descobre aqui alguns dos melhores momentos de Cannes. Conhece as criações do Rui e da Lili no dipping station, onde puderam dar asas à criatividade, brincar com os vários toppings e criar versões únicas do seu Magnum preferido. 🍦 Têm ambos um aspeto delicioso, mas qual deles gostavas de poder provar? #MagnumCannes #NeverStopPlaying #SêFielAoPrazer	-,667	3	1,5275
Descobre o sabor delicioso de Lipton chá verde. Leve, refrescante e baixo em calorias.	-1,000	1	.
Descubra o sabor do novo Carte D'Or cheesecake caramelo salgado e deixe-se envolver por esta combinação de sabores irresistível. Et voilà!	,632	68	,8794
Divertida, arrojada e irreverente. Cheia de brilho, glamour e elegância. Assim foi mais uma edição da Festa Magnum em Cannes. Fica a par dos momentos mais marcantes da noite. #MagnumCannes #NeverStopPlaying #SêFielAoPrazer	-,773	22	,8691

E se fosse possível acabar com os estereótipos de beleza no mundo? Dove criou o projeto #MostremNos - a primeira biblioteca de fotografias com uma representação real das mulheres, publicamente acessível. Juntos podemos criar a mudança que queremos ver no mundo! Saiba mais em dove.com/MostremNos	,929	14	1,0716
E se fosse possível acabar com os estereótipos de beleza no mundo? Dove criou o projeto #MostremNos - a primeira biblioteca de fotografias com uma representação real das mulheres, publicamente acessível. Juntos podemos criar a mudança que queremos ver no mundo! Saiba mais em dove.com/MostremNos	,000	1	.
És fã de futebol e vibras com bola? ⚽ Então não podes perder esta oportunidade: vamos levar duas pessoas a conhecer o estádio do Atlético de Madrid e alguns dos maiores jogadores do mundo. 😊 Para te habilitares a ser um dos sortudos move-te como um pro e mostra-nos, num vídeo, os melhores truques que sabes fazer com uma bola de futebol. Fácil, não é? 😊 Inspira-te com os melhores e mostra-nos o que sabes fazer: http://bit.ly/MoveLikeaPro . Consulta todas as informações no nosso regulamento: http://bit.ly/RegulamentoMoveLikeaPro .	-,167	12	,3892
Este passatempo vai-te pôr a dançar. 🕺 Quanto mais Danças, quanto mais te Moves... mais Rexona te protege! 🕺 És fã dos Now United e adoravas experimentar o produto que temos em parceria com eles (disponível atualmente apenas no Brasil)? Para isso só tens de: escrever uma frase criativa com as palavras "Rexona" e "Now United" e as 5 melhores ganham. Temos hoodies e desodorizantes Rexona x Now United para te oferecer. Põe a tua veia criativa a mexer e tenta a tua sorte. 😊 Consulta o regulamento aqui: #dancamaisvivemais #mexetemaisvivemais	,444	54	,5379
Este passatempo vai-te pôr a dançar. 🕺 Quanto mais Danças, quanto mais te Moves... mais Rexona te protege! 🕺 És fã dos NowUnited e adoravas experimentar o produto que temos em parceria com eles (disponível atualmente apenas no Brasil)? Para isso só tens de: escrever uma frase criativa com as palavras "Rexona" e "Now United" e as 5 melhores ganham. Temos hoodies e desodorizantes Rexona x Now United para te oferecer. Põe a tua veia criativa a mexer e tenta a tua sorte. 😊 Consulta o regulamento aqui: #dancamaisvivemais #mexetemaisvivemais	,625	16	,7188
Estimule o desenvolvimento do seu bebé com as atividades que lhe sugerimos, e tire maior partido do tempo que passam juntos :)	,000	2	,0000
Experimenta Lipton Chá Verde Matcha, com gengibre e erva-príncipe, uma combinação baixa em calorias e deliciosamente refrescante!	,619	21	1,1170
Experimenta o novo Lipton Ice Tea de Pêssego! Sem açúcar, sem calorias, o mesmo sabor!	,250	4	,9574
Fazer Surf é para a vida! O otimismo de Surf cuida do teu dia e da tua roupa! #vaisfazersurf	2,000	2	,0000
Há combinações inesquecíveis: chá preto biológico Argentino com pêssego do Mediterrâneo, ou limão da Sicília, ou menta de Marrocos. Saboreia-as... muito lentamente.	,429	7	,9759
Já conheces Lipton Chá Verde? É delicioso e baixo em calorias! Vais conseguir resistir-lhe?	2,000	1	.

Já experimentaste o novo Axe Collision Leather & Cookies? Uma colisão de fragrâncias que não deixa ninguém indiferente, principalmente ela. 😊	,182	11	,8739
Juntamo-nos ao trio mais disruptivo de sempre: Lili Caneças, Rui Maria Pêgo e Carolina Loureiro são os novos rostos Magnum. Este trio imparável respira a diversão, a indulgência e o prazer verdadeiro de Magnum. #MagnumCannes #NeverStopPlaying #SêFielAoPrazer	-,635	52	1,2372
Luzes, câmara, ação! 📷 📺 📺 Cannes, chegámos! A festa vai começar em breve, fica desse lado para não perderes nada. 🍷 #MagnumCannes #NeverStopPlaying #SêFielAoPrazer	-,375	8	,7440
Mantém-te fresco e perfumado com o novo gel de banho Axe Collision Leather & Cookies. Atreve-te a experimentar!	,059	17	1,0880
Mima a tua pele com o novo pack máscaras Simple! Apenas 2,95€. Compra já aqui. 🖱️	,235	34	,6989
Novo Axe Leather & Cookies, uma colisão de fragrâncias improvável que não deveria resultar, mas que resulta! Atreve-te a experimentar!	,600	10	,6992
Novo Surf inspirado na natureza vai provocar uma verdadeira explosão de Perfume de Coco!	,851	148	,9430
Novos sprays Cif Nature, para Cozinha e Casa de Banho! Experimente a mesma eficácia de sempre, agora mais natural 😊	1,333	30	,8442
Nunca é tarde para fazer Surf! O otimismo de Surf faz vibrar o teu dia e a tua roupa! #vaisfazersurf	,687	16	1,0782
O RicFazer e o Daizer testaram o novo Axe Leather & Cookies e... ficaram on fire! 🔥 Queres saber porquê? Descobre aqui. 😊	,194	31	1,0776
O RicFazer vai estar no Moche XL Esports e nós damos-te a oportunidade de ir também. Queres conhecê-lo num meet & greet exclusivo? Para seres um dos vencedores e teres AXEcess a esta experiência só tens de nos dizer porque é que mereces ser um dos sortudos. As 8 participações mais criativas ganham um bilhete para o dia 15.06 e a oportunidade de jogar FIFA 2019 com o Ric. 😊 Sabe mais aqui: https://docdro.id/3reFjZK .	,647	139	,7209
Os novos Simple Mini chegaram! Em formato Mini, prático e conveniente para os levares sempre contigo!	-1,000	1	.
O Tiagovski testou o novo Axe Leather & Cookies e... o improvável aconteceu. 😊 Experimenta tu também e deixa-te surpreender.	,000	2	,0000
Para as noites a ver filmes no sofá, para os fins de semana a ver séries ou... para qualquer ocasião que peça Ben & Jerry's! :D Descobre Sofa So N'ice, um delicioso gelado Ben & Jerry's de caramelo com brownies de chocolate, cookies de chocolate e caramelo salgado!	,333	33	,8539
Para ti, que gostas de usufruir das coisas boas da vida, temos exatamente aquilo de que precisas: Pure Leaf, Chá Frio Biológico. As melhores folhas de chá preto argentino com limão da Sicília, pêssego do Mediterrâneo ou hortelã de Marrocos. Uma experiência única, para ser saboreada com tempo.	,400	10	1,5776
Páscoa é sinónimo de doces deliciosos, e a nossa Pavlova Ninho, com merengue e chantilly, não é exceção!	,565	23	,7278

Porque adoramos o Sol? Porque torna o nosso Lipton Ice Tea ainda mais delicioso e refrescante, mas leve em calorias!	-,333	3	1,5275
Pure Leaf é feito com os melhores ingredientes de origem biológica, para te proporcionar momentos de puro prazer! Mmm! Vais deixar que agarrem o último copo?	,889	9	,7817
Quem faz Surf, faz o ano inteiro! O otimismo de Surf dá mais cor ao teu dia e à tua roupa! #vaisfazersurf	,667	18	1,1882
Rexona men, quanto mais te moves, mais te protege.	,000	1	.
Tens o que é preciso para ser o n.º1? Então este passatempo é para ti! Linic e Fitness Hut têm 5 mensalidades para te oferecer, num clube à tua escolha, e um cabaz de produtos. Para participar só tens de nos deixar uma frase original, que incluía as palavras "Linic", "Fitness Hut" e "uso diário" e que nos conte o que é preciso para ser o n.º1. Regulamento em https://bit.ly/2V3ySFB	,900	20	,4472
TRESemmé Liso Keratina ajuda-te a conseguir um liso perfeito, brilhante e sem frizz. #FAZPORTI e pelo teu cabelo.	1,000	9	1,2247
Vais deixar que ele continue a roubar o teu Dove? A pele do homem é diferente da tua, é por isso que Dove Men+Care hidrata a pele dele, enquanto Dove nutre a tua!	,357	14	,4972
Whoa, whoa, whoa! Porque até o Iron Man usa Axe para salvar o mundo, temos 10 bilhetes duplos para te oferecer e ires ver o filme "Avengers: Endgame". Mas calma, podes continuar chill, para seres um dos vencedores não precisas de ser um super herói, só tens de: - Provar que és um verdadeiro fã de Axe e de Avengers e ser um dos 10 primeiros a responder corretamente às nossas perguntas; - Dizer-nos em que cinema gostavas de usufruir do prémio – consulta aqui a lista: http://bit.ly/2WeZH6r . Perguntas: 1. O novo Axe Ice Chill consegue baixar a tua temperatura corporal até quantos graus? Damos-te uma ajuda aqui: http://bit.ly/2ZItS8b . A) 5º B) 6º C) 7º 2. No filme "Vingadores: Guerra Infinita", quando Thanos estalou os dedos qual destas personagens não morreu? A) Dr. Stranger B) Spider Man C) Viúva Negra Participa e desfruta, porque sabes? You're hotter when you're chill!	,066	61	,2496
Total	,472	1089	,9821