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Exploiting the Impact of User-Generated Content on Brand Coolness and Consumer Brand Engagement: A Text-Mining Approach

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Master in Marketing

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October, 2020



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Resumo

Esta dissertação visa entender o impacto da utilização de campanhas de conteúdo gerado pelos utilizadores nas percepções dos consumidores da *coolness* de uma marca e interações entre marca e consumidores. A tendência *coolness* na indústria da beleza é examinada através de *electronic word-of-mouth* para compreender se encorajar os utilizadores a partilhar conteúdo sobre as suas experiências com as marcas, os leva a pensar na marca como *cool* e a interagir mais com essas publicações.

A metodologia usada é uma análise netnográfica em conjunto com uma técnica de análise sentimental. A análise foi conduzida sob interações textuais, incitadas pela campanha da marca de prestígio de beleza – Drunk Elephant, entre a marca e a sua comunidade online na rede social Instagram durante um ano para evitar fenómenos sazonais. Os comentários foram extraídos por *text mining* e analisados através de processamento de linguagem natural, tendo em conta a polaridade do seu sentimento, e tópicos mais frequentes identificados. Os dados retirados do ano de 2019 totalizaram 67 321 interações.

Os resultados demonstram que as percepções de *coolness* do consumidor podem ser positivamente influenciadas adotando o uso destas campanhas e podem conduzir a interações positivas. Não só estas campanhas criam visibilidade para a marca, como encorajam a expansão da comunidade da marca e influenciam as percepções dos seus consumidores. Marcas na indústria da beleza que procuram aumentar a sua *coolness* e interações com os consumidores devem considerar implementar campanhas de conteúdo gerado pelos utilizadores, de maneira a manter-se atuais num mercado em constante transformação.

Palavras-Chave: Conteúdo gerado pelo utilizador; Marca *Cool*; Interações Consumidor-Marca; Indústria da Beleza; Análise Textual.

Sistema de Classificação JEL: M31; M37.

Abstract

This dissertation aims to comprehend the impact of deploying user-generated content (UGC) campaigns on consumers' perceptions of brand coolness and consumer brand engagement. The trending concept of coolness in the beauty industry is studied through electronic word of mouth to understand if brands encouraging their users to post about their brand experiences leads to consumers perceiving them as cool and engaging more positively through those publications.

The methodology in use is a netnography, along with a sentiment analysis technique. The analysis consisted in observing the interactions, incited by a user-generated content campaign led by a prestigious beauty brand - Drunk Elephant, between the brand and its online brand community on the social network Instagram for one year to avoid seasonal phenomena. The comments were retrieved using a text-mining tool and analyzed through Natural Language Processing according to their sentiment polarity, and trending topics identified. The data retrieved from the year of 2019 amounted to 67 321 interactions.

Results show consumers' perceptions of coolness can be positively influenced by adopting UGC campaigns, which can also lead to positive consumer brand engagement. Not only do these campaigns generate brand awareness, but they stimulate brand community's expansion and influence consumers' perceptions towards the brand. Beauty brands seeking to grow their status of coolness and consumer interactions should consider implementing user-generated content campaigns, as keeping up with the trends in the market is not only regarded as cool but is necessary to remain relevant in the ever-changing marketplace beauty has proven itself to be.

Keywords: User-generated-content; Brand Coolness; Consumer brand engagement; Beauty Industry; Textual Analysis.

JEL Classification System: M31; M37.

Table of Contents

Acknowledgments.....	i
Resumo	ii
Abstract.....	iii
Table of Contents	iv
Figure Index	vi
Table Index	vii
Glossary of Acronyms	viii
1 Introduction.....	1
1.1 Dissertation Structure.....	3
2 Literature Review.....	4
2.1 WOM and eWOM.....	4
2.1.1 WOM	4
2.1.2 eWOM.....	4
2.2 Luxury Cosmetic Industry	10
2.2.1 Challenger versus Leader brands in the Beauty industry.....	12
2.3 Brand Coolness	15
2.3.1 Characteristics of coolness.....	16
2.3.2 Life cycle of brand coolness	18
2.3.3 Differences between niche and mass cool brands.....	19
2.4 Consumer Brand Engagement	20
2.4.1 CBE within an Online Context	23
3 Methodology	25
3.1 Contextual Environment of the Underlying Data	27
3.2 Data Collection and Preparation	29
3.3 Sample.....	30

4	Results.....	38
4.1	Global Sentiment Analysis	39
4.2	Topic Sentiment Analysis	40
5	Discussion and Conclusions	47
5.1	Theoretical contributions	48
5.2	Managerial Implications	52
5.3	Limitations and future research	53
6	References.....	55
7	Annexes.....	62

Figure Index

Figure 1.1 – Dissertation Structure Diagram	3
Figure 2.1 - Brand value of the leading ten cosmetic brands worldwide in 2020 (in billion U.S. dollars). Source: Statista (2020).....	11
Figure 2.2 - Life cycle of brand coolness. Source: Warren et al., 2019.	18
Figure 3.1 - Drunk Elephant's logo. Source: Drunk Elephant.	27
Figure 3.2 - Drunk Elephant's UGC Post. Source: Drunk Elephant's Instagram Profile.	28
Figure 3.3 - Ontology Tree from Dictionary of Consumer Brand Engagement and Brand Coolness. Source: MeaningCloud.....	33

Table Index

Table 2.1 - Consumer Brand Engagement Scale.	23
Table 3.1 - Sample Size and Characteristics.....	31
Table 3.2 - Brand coolness and consumer brand engagement dictionary with the top three words for each dimension.	34
Table 3.3 - Polarity Scale.....	36
Table 3.4 - Irony, Subjectivity, Agreement Scale.....	36
Table 3.5 - Topic Clustering.	37
Table 4.1 - Comments' polarity scale, positive to negative (GSA).	39
Table 4.2 - Comments' irony, subjectivity, and agreement (GSA).	40
Table 4.3 - Frequency of topics in clusters (TSA).....	41
Table 4.4 - Topics' polarity scale, positive to negative (TSA).....	42
Table 4.5 - Clusters' polarity sentiment analysis (TSA).	46

Glossary of Acronyms

Abbreviations	Meaning
CBE	Consumer Brand Engagement
CE	Consumer Engagement
DE	Drunk Elephant
EWOM	Electronic word-of-mouth
EX	Example
FGC	Firm-generated-content
FP	Fundamental Propositions
GSA	Global Sentiment Analysis
ID	Identity Document
M&A	Mergers and Acquisitions
N	Negative
NEU	Neutral
NLP	Natural Language Processing
OG	Original Gangster
P	Positive
RQ	Research Question
SD	Standard Deviation
TSA	Topic Sentiment Analysis
UGC	User-generated-content
URL	Uniform Resource Locator
US	United States of America
VAR	Variance
WOM	Word-of-mouth
WTP	Willingness to pay

1 Introduction

Digitally native brands have been emerging in the luxury beauty industry and shaping the new trends in this sector. Heritage brands must adapt and reinvent themselves as cool to keep these challengers from stealing their share in the market. Challenger brands' coolness factor allows them to set the new rules in the cosmetic market by relying on e-commerce and social media presence to grow a loyal brand community of consumers and ultimately drive sales (EY, 2019). Digital channels have received much attention from marketing academics and practitioners due to their disruptive force and capability of challenging the established brand leaders, with massive advertising capabilities, through cost-effective communications and campaigns. An important question arises: can heritage brands adapt, or will digitally native challenger brands become the new leaders of the luxury beauty industry? To keep their position at the top of the market, brand leaders have been engaging in a series of mergers and acquisitions. As the saying goes, "if you can't beat them, join them." While it poses as an effective tactic, in the long run, these brands must adapt to the new forces of change if they do not wish to lose their momentum. To carry this out, they can take a page out of the challengers' book.

What practices have been deploying these beauty industry disruptors that can be harnessed by the established brands? To adapt, new entrants and heritage brands must follow the new trends in the market or even promote new ones. Being considered cool, the most important concept in this sector must be the driver of their strategic efforts. But how does a brand determine what is cool and what is not? They don't. Consumers already offer a substantial amount of information on how they perceive things. And it's all available on communication exchange platforms online. With the competition rising from indie brands with a strong presence in social media, it can be deemed illogical not to analyze the information available there to define new strategic courses of action. Electronic word-of-mouth generated from marketing campaigns on social media can be retrieved and analyzed through textual analysis techniques to understand if such campaigns produce a positive influence on consumers. Data can also be gathered from social media electronic-word-of-mouth to determine the current status of a brand's coolness by analyzing consumer's perceived cool characteristics conveyed by the brand.

Nurturing user-generated content has been a common practice between niche beauty brands, and therefore it would be interesting to see how campaigns based on this practice can enhance consumers' perceptions of a brand's coolness. Additionally, it can also be useful to determine whether these campaigns impact consumer brand engagement. The more consumers interact with and share a brand's communications on social media, the greater will become consumers' awareness of the brand. Hence, the main goal of this dissertation is to understand how consumers express their perceptions of brand coolness and how they engage with brands through user-generated content in a social media context. The following research questions were proposed to get to the source of these matters:

1. Does a user-generated content campaign influence consumers' perceptions of brand coolness?
2. Does a user-generated content campaign influence consumer brand engagement?
3. Can a brand's coolness status be identified through the online brand community's electronic word-of-mouth?

The digitally inherent brand Drunk Elephant was selected due to its fast rise in popularity in a short number of years and its status as one of the iconic challenger brands in luxury beauty. Their iconic position was reached for initiating a whole new category in this market and only harnessing the power of social media to create momentum for their brand. Famous for the social media channel Instagram movement #barewithus🐘, where they encouraged users to post content concerning their experience with the brand (user-generated content), Drunk Elephant achieved mass coolness by solely resorting to electronic word of mouth from its users. In short, established brands have a thing or two to learn about being cool from the marketing efforts carried out by this beauty industry disruptor.

In conclusion, this can be insightful for marketing practitioners seeking to leverage the power of word of mouth to achieve or maintain coolness and magnify consumer engagement with brands and between each other. New entrants or previously established brands in the luxury beauty industry can harness this information to create innovative marketing campaigns based on the new trends in the market and keep themselves relevant in ever-changing market landscapes.

1.1 Dissertation Structure

To achieve these goals, a literature review will be constructed on the topics mentioned above: (1) understanding the motivations and impact of electronic-word-of-mouth and user-generated content, (2) the context being examined of challenger and heritage brands in the beauty industry, the conceptualizations of (3) brand coolness and (4) consumer brand engagement. Subsequently, it will be followed by empirical research consisting of a netnographic analysis of the online brand community of Drunk Elephant, through the deployment of a textual analysis technique. This technique will comprise a sentiment and a topic sentiment analysis to determine consumers' sentiment towards the constructs and the trending topics being discussed, which is further explained under the Methodology chapter. Then, results will be presented and analyzed, followed by the main conclusions, theoretical and practical, to be taken. Afterward, this research's limitations will be pointed out and future fields of this research concerning these topics will be proposed (Figure 1.1).

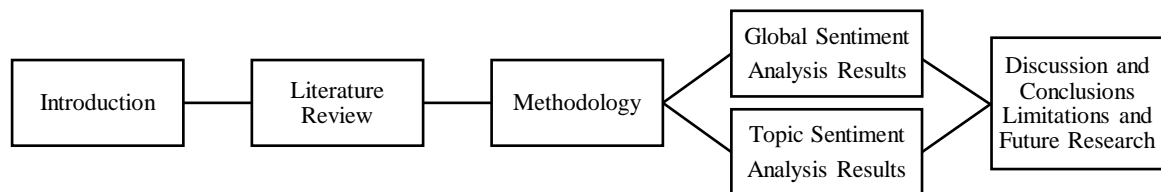


Figure 1.1 – Dissertation Structure Diagram

2 Literature Review

2.1 WOM and eWOM

2.1.1 WOM

“Did you hear about [product]?” “All of that [brand]’s products do wonders for me.” “I hate everything from that brand.” From ancient times, word of mouth (WOM) has been an effective way of exchanging information among consumers capable of influencing their behavior (Dellarocas, 2003). Some authors claim that WOM is the most influential factor affecting each individual’s decision-making process (Daugherty & Hoffman, 2014; Litvin et al., 2008). Traditionally, WOM has been conceptualized as communication exchanges, between individuals, concerning either a product, a service, or a company (Arndt, 1967) whose persuasive influence on the receiver of the communication is considered to be more effective than firm-generated content due to the source’s credibility (Huete-Alcocer, 2017). Consumers are more likely to trust recommendations made from users who already consumed the product or service they are referencing than recommendations from the organization whose ultimate goal is making a profit. Despite the effectiveness of influential word of mouth, its reach was fairly minor since the receivers had to be present in the conversation to be influenced by the recommendation and there had to be familiarity between them (Brown et al., 2007).

2.1.2 eWOM

It was not until the rise of Web 2.0, allowing the interchange of communications to the population at large, that WOM began being exchanged between individuals with no particular connection between them, through online platforms. Consumers were suddenly allowed to anonymously (or not) share their experience and opinions of their consumption of goods with many strangers. This exchange of communication within an online context was conceptualized as electronic word of mouth (eWOM), “any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet” (Hennig-Thurau et al., 2004; p. 39). The anonymous feature, large reach, speed of diffusion, accessibility, measurability, and remanence on the internet for a large period awarded eWOM with high regard from marketing scholars and

managers (Cheung & Thadani, 2012; Hennig-Thurau et al., 2004; Litvin et al., 2008). Electronic word-of-mouth's measurability factor is owed to the far more observable and persistent quantity of its communications online when compared to traditional word-of-mouth that can only be observed if the observant is present at the time of communication being exchanged. Computer-mediated communications can be observed through interactive online platforms such as discussion forums, opinion/reviews websites, blogs, social networking sites, and brand/marketplace sites, and afterward retrieved through textual analysis techniques (further explained in the Methodology chapter).

2.1.2.1 Consumer motivations for creating eWOM

But what is the motivation underlying consumers' engagement in eWOM communications? Hennig-Thurau et al. (2004, p. 45-48) claim that the frequency of opinion web-based platform visits and the number of comments there written is most significantly impacted by consumers desire for "social interactions", desire for "economic incentives", "concern for other consumers" and "potential to enhance their self-worth". Taking into account the variety of reasons for consumers to participate in eWOM, the same authors offered a segmentation of these consumers according to their motivations. A common and primary motivation for all of these segments was found to be "concern for other users". The secondary motivations that made it possible to distinguish between the communication contributors were as follows:

1. Economic incentives → *Self-interested helpers*;
2. All the mentioned motives → *Multiple-motive consumers*;
3. Concern for other users as a unique motive → *Consumer advocates*;
4. Concern for other users as well as companies → *True altruists*.

The second segment (*Multiple-motive consumers*) was found to engage in a higher number of eWOM communications. On the contrary, *true altruists* and *consumer advocates* were the lowest contributors of eWOM. Given the different motivations behind each particular segment, companies may want to devise strategies for each of them to increase further their chances of inducing eWOM communications. As an example, a company can stress the importance that by sharing their experiences, consumers can help both other users and the

company itself, consequently targeting the segment: *true altruists* (Hennig-Thurau et al., 2004).

While the motivation behind consumers' exchange of communications online has been explored by some authors, other scholars focused their research on the impact of eWOM in the receivers of the interactions. Particularly, eWOM's impact on consumers' perceptions of brand image, their purchase decisions, and the impact on a firm's product sales and performance. For this reason, the impact of eWOM was analyzed at two different levels: individual-level and market-level (Cheung & Thadani, 2012). At the individual level, the impact on consumers' brand image perceptions and purchase decisions; at the market level, the impact on the firm's product sales and performance.

2.1.2.2 *Impact of eWOM*

Impact of eWOM in brand image

Regarding the individual level, pieces of information regarding products or brands shared between online users lead to product/service expectations (for the receiver), which in turn contribute to the formation of a brand's image in consumers' minds before any purchase. High-involvement consumers, willing to allocate more of their time and effort to evaluate a product's or brand's advantages or disadvantages, will read more eWOM information to develop their expectations on the brand. If the information they encounter is mostly positive then the image they form of the brand will likely be so, if most of the information is negative then so will be the brand image. Thus, a brand can try and manage these expectations devised by eWOM to assert a positive influence in consumer's perceptions of brand image. However, it's important to note that the brand image projected by a firm may have some disparities with the brand image perceived by consumers, which is why managers need to attempt to adjust these expectations. By placing the most positive information in more visible and accessible locations and the most negative assessments in the least visible placements might lead to more positive brand image perceptions in consumers' minds. (Krishnamurthy & Kumar, 2018).

Impact of eWOM in purchase intention and product sales

In addition, eWOM's impact, at the individual level, on consumers' purchasing intention was commonly examined through the valence (positive, neutral or negative) and volume (number of recommendations) of the communications. eWOM valence was found to be positively associated with the credibility of the communications. Positive eWOM would encourage consumers to use a product or service by highlighting its strengths and benefits while negative eWOM would do the reverse: discourage people to use them. Also, further research showed that negative information receives more attention when compared to positive one and negative eWOM is more weighed in the process of consumer's purchasing decision. In fact, negative communication was found to be capable of increasing the likelihood of purchasing. With regard to the volume of communications, previous research found a positive association between the number of reviews and purchasing intention. Similarly, at the market level, research showed that the number of reviews, unlike the rating of the review, is significantly associated with product sales (Cheung & Thadani, 2012). Consequently, the impact of eWOM on product sales is capable of influencing firm performance through revenue.

Impact of eWOM in firm performance

The impact of eWOM on a firm's performance can be stressed by analyzing the influence of information mechanisms, depleted in online communities, on a firm's reputation. To better understand how communications in online communities can influence a firm reputation, one must first conceptualize (1) the environment where the influence can take place (online communities), (2) the mechanisms used to measure communication exchange (valence and information diversity), and (3) the differences in reputational impact exerted by different sources of content (firm-generated content and user-generated content).

eWOM in online communities

As the exchange of communications regarding consumption experience of a product or firm began transitioning from traditional channels to online, thus becoming eWOM, one of the first conceptualizations of online communities related to consumption was proposed. Kozinets defined virtual communities of consumption as "affiliate groups whose online interactions are based upon shared enthusiasm for, and knowledge of, a specific consumption activity or related

group of activities” (Kozinets, 1999, p. 254). Members of virtual communities would engage in these platforms to receive information other users shared about their experiences and to share their own. Anyone looking to buy a product could go to the internet to find consumption-related content written about it. Examples of virtual communities of consumption included social media networks, blogs, website group chats. Also known as online communities, virtual communities were later on defined as “groups of online individuals who share interests and interact with one another” (Litvin et al., 2008, p. 464). Communities online would connect people with common interests or liking of a particular product or a brand. Kozinets (1999) and Cheung et al. (2008) were some of the authors that studied the impact of eWOM on consumption decisions through the analysis of interactions within an online community.

Information mechanisms measurement

According to Nisar et al. (2020), online information mechanisms, measured through information diversity and valence, have a reputational impact in an online community and the revenue a firm generates. The communications between users and a firm shared in interactive online communities (eWOM) are capable of enhancing the firm’s reputation through information diversity, since it gives the user access to heterogeneous content concerning the firm which allows him to evaluate the firm actions and performance. Moreover, the valence of the opinions/reviews shared within an online community also has an impact on the reputation of a firm as users reflect their emotions and sentiment on their use and experience of the brand. However, it’s important to take into account the dissimilarities between the reputational impact of the content generated by the firm (Firm-generated Content) and the content generated by users (User-generated content).

FGC versus UGC

Firm-generated Content (FGC) refers to the interactions a firm undertakes with its online community users (Nisar et al., 2020). With the rise in use of interactive platforms, firms became capable of engaging directly with its users to provide them any relevant information (ex. firm’s products, suppliers, social and ecological impact, and so forth). By being able to access information directly from the source, users could better perceive the reputation the firm was

trying to put out. In addition, interactive platforms also allowed users to disclose any information they wanted concerning a company and its products. If users belonged to an online community, they would be more likely to share their experience with others, whether it be favorable or not. Users could share content on online platforms in the form of images, videos and text, not just concerning consumption experiences but their overall opinions on the brand. Similar to traditional review platforms, social media channels like Facebook, Twitter, Instagram became regular stops for consumers looking to send (post/publish) or receive (read) any information about a certain brand. The content shared within these platforms became known as User-Generated Content (UGC), the “media content created or produced by the general public rather than by paid professionals and primarily distributed on the internet” (Daugherty et al., 2008, p. 16). Consumers looking for consumption and brand experiences would resort to online platforms to make their purchase decisions and thus be influenced by other users’ perceptions of a brand and its products, which in turn would influence a firm reputation.

Impact of eWOM in firm reputation

Having explained the intricate concepts underlying the impact of electronic word of mouth on firm reputation, it is now easier to understand how they exert their influence. Both FGC and UGC were found to be associated with information diversity. Users in an online community would likely be more exposed to information about a firm than non-users. As their exposure to information increased, so did their level of information diversity on the firm’s values and actions. As a consequence, UGC and FGC are capable of influencing a firm’s reputation, which in turn can lead to revenue growth or decline as users form their purchase decisions based on the information they have about the firm and its products. While the information diversity of FGC and UGC has the same reputational effects, the impact in reputation of the valence of eWOM differs from the source of its content (firm- or user-based). This is mainly due to the fact that while users with no connection to the company have no reason to lie when sharing their emotional opinion on their products or brand, the latter has every reason to do so, which reduces its credibility. The empathy a user experiences when reading UGC is greater when compared to FGC. This reinforces the importance for firms to provide transparent and unbiased content to users. Emotional FGC can be badly perceived by users and damage the reputation

of the firm. As a result, firms must focus on encouraging positive comments from their online communities as UGC's positive valence is more beneficial for the company's reputation. To conclude, research has shown that eWOM produces an impact on a firm's reputation, which in turn influences revenue changes – an indicator of firm performance (Nisar et al., 2020).

Impact of eWOM on user engagement

Furthermore, there has been previous research conducted on the impact of eWOM, again measured through the information diversity and valence of communications, on user's predisposition to engage within an online community (Nisar et al., 2020). Results show that the more users share UGC and FGC posts, the more discussion will be generated. Likewise, the higher the level of valence of the opinions/reviews, the higher will be engagement among users on the online community.

In a nutshell, eWOM has shown significant impact on consumer's purchase decisions and perceptions of brand image, product sales, performance and user engagement. These findings are of utmost importance as disregarding the impact of eWOM on these constructs could be damaging for the company. While it is not referenced here, there has been far more extensive research conducted in this field. However, there has been a selection of previous literature according to its relevance to the dissertation.

2.2 Luxury Cosmetic Industry

The luxury cosmetic market accounted for 24% of the luxury goods revenue in 2019, \$76 billion (Statista, 2019). This market segment comprises prestige skincare, fragrances and decorative cosmetics. According to the same report, the brands within the luxury and prestige divisions from L'Oréal, Estée Lauder, LVMH, Coty and Shiseido are considered the major players in the industry. From these divisions, skincare products stand out for taking almost

50% of product sales. In Figure 2.1 can be seen the brand value of the ten leading cosmetic brands worldwide in 2020 (Statista, 2020a).

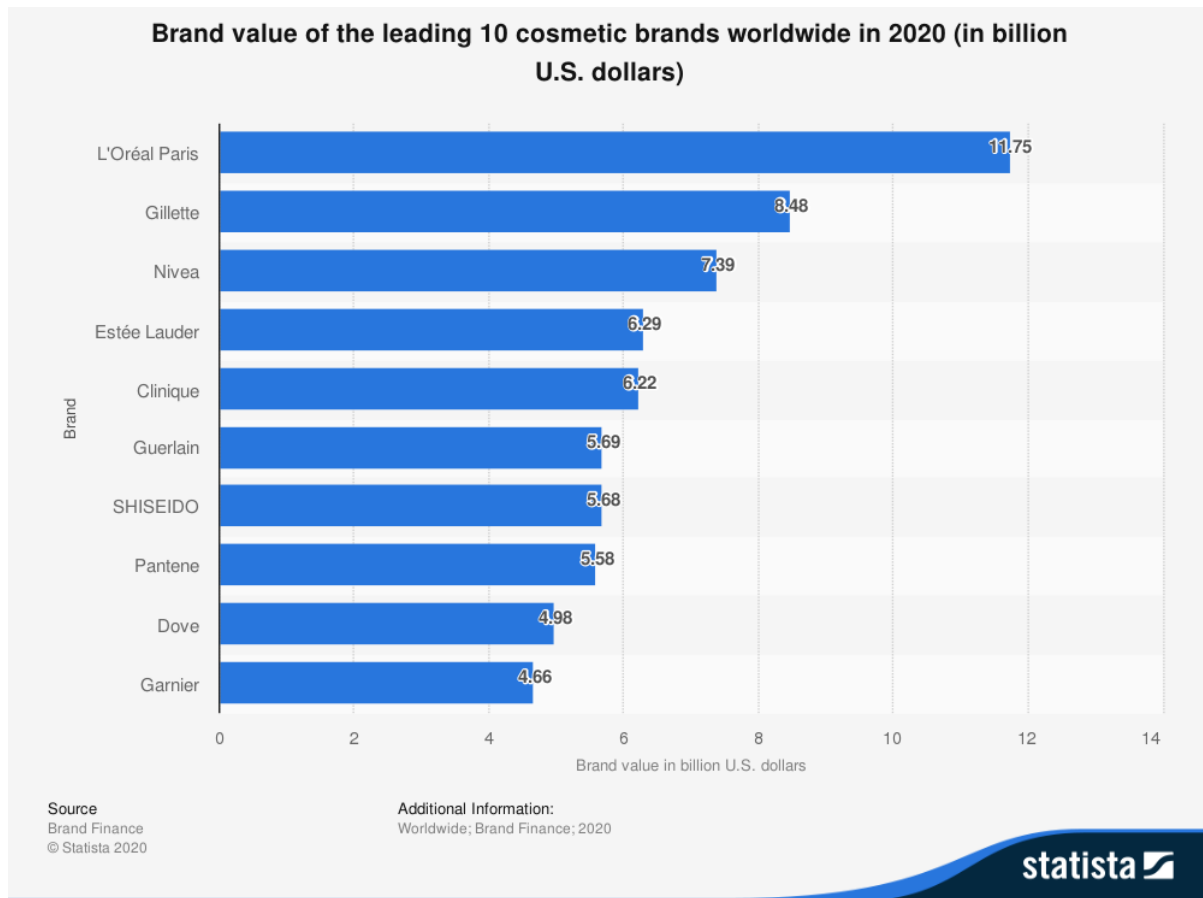


Figure 2.1 - Brand value of the leading ten cosmetic brands worldwide in 2020 (in billion U.S. dollars). Source: Statista (2020).

These figures show there is relevant sales revenue being generated from this market segment which is even expected to increase to \$101 billion by 2025. However, few scholars have dedicated their attention to this fast-growing market setting. According to Forbes (Forbes Technology Council, 2020), consistent leveraging of online platforms like YouTube, Instagram, Pinterest, with in-store technology providing custom product suggestions, is one of the key learnings that retailers can take from the beauty industry. Their continuous innovation allied to digital strategies is one of the main reasons for the cosmetic retail's consistent growth as other markets decline, such as fashion retailers. Other sources confirm that there is a fast-growing trend in the luxury goods industry particularly, the cosmetic categories: according to EY (2019, p.6), luxury cosmetic "traditional players face competition from digitally native

brands, or newborns with a strong e-commerce and social media presence”. These challenger brands, relying on online channels to grow sales, shaped a new trend conceptualized as *coolness*, focused on exclusivity, establishing strong customer relationships, conveying transparency and sexiness. To make it in the beauty industry, companies need to invest in transmitting coolness as this is now considered the most important concept in this arena. The emergence of these new are forcing the established brands to redefine themselves. Consumers expect brands to keep up with the growing trends, their passion for causes, social media, tailored product offerings, organic and natural ingredients, information search through digital brand ambassadors - influencers. This raises an important question: can heritage brands adapt or will digitally native challenger brands become the new leaders of the luxury beauty industry. Future expectations show a rise in sales growth in the following years from “changing demographics, new geographies, and mergers and acquisitions of niche and indie industry disruptors” (EY, 2019, p.17).

2.2.1 Challenger versus Leader brands in the Beauty industry

Limited research has been conducted regarding challenger brands (de Chernatony & Cottam, 2009; Kumar et al., 2000; Morgan, 2009) which has led to a lack of adoption of the term. Kumar et al., (2000, p. 129-130) define challengers as “market-driving companies, who are generally new entrants into an industry, (that) gain a more sustainable competitive advantage by delivering a leap in customer value through a unique business system”. Morgan (2009, p. 26) suggested that challenger brands must follow three criteria to be considered as such:

1. Being 2nd rank brands (at best).
2. Having a state of mind in which their marketing efforts go beyond the norm to match their ambitions and determination. Their challenge of the status quo is what gives the name to these brands.
3. And ultimately, a challenger brand must be successful in challenging the norm, in other words, they must sustain rapid growth through their marketing efforts.

In addition, he defines Establishment brands as the antithesis of Challenger Brands. The most common example are the ones known as Brand Leaders safely ranked at the top of the

market. These establishment brands fall into such categories by lacking ambition, urge to innovate and non-risk taking.

Chernatony & Cottam, (2009, p.78) define a challenger brand as a “cluster of values challenging conventional market norms during a given time period, either through radical ideas or innovatively redeploying assets”. Similar to previous scholars, these authors believe challenger brands take an innovative approach into an established market to challenge the status quo. These challengers can either be new entrants, or already established ones seeking to forego their conformity status and change the rules of the game. Their goal is muffling the voice of the mass market leader by building themselves a niche in the market. Today, those marketing efforts can be effectively carried out through social media without substantial costs, which is why these brands can challenge the established brand leaders who own a hefty advertising budget. Remarkable examples of challenger brands were IKEA and Cirque du Soleil. These brands set their own rules in a way the established brands in their industries had never considered. Cirque du Soleil reinvented the circus by tapping into unknown market space. While another circus in the industry offered animal shows, clowns and competed in the same space with very similar offerings, Cirque du Soleil gave birth to a new market space where street performers could show their physical skills as entertainment. IKEA entered a market where premium prices for furniture and assembling were the rule and lowered the prices if the customer assembled the product himself. Both of these brands are globally acknowledged today. By investing in the “blue ocean” of unknown market space, they challenged the conventional market rules and succeeded in doing so (Kim & Mauborgne, 2005). The legacy brands contesting the same market space as their competitors operate in the “red ocean”.

Several references have been made in cosmetic and beauty related publications concerning this industry’s evolution surrounding indie brands. Indie Brands was the name attributed to the beauty brands disrupting the industry and its marketing tactics in unconventional ways. EY made the reference to these as “rising independent brands focused on the authenticity of the product” (EY, 2019). Rising to fill an unmet need in the market, indie brands are considered challengers for distinguishing themselves from the legacy brands and targeting niche segments that were being overlooked. Their unique marketing strategy focused mainly on social media due to small budgets has proven itself to be a cost-effective method of reaching

potential customers, truly connecting with them and accumulating sales. These challengers' unique and innovative market propositions grant them considerable rivals to the established leaders and their expansion has not been trivial. The indie beauty boom has revolutionized this industry through unique models, supply chains, branding and relationship with consumers (Doyle, 2020).

Being a rising threat to the beauty industry leaders initiated several mergers and acquisitions which are ongoing until this day. The industry leaders fight for market share with the challenger brands surfacing more and more often. To stand their ground as industry leaders, their solution was to merge or acquire these indie contestants to reassure their consolidated position at the top of the food chain. The need for expansion into new categories, geographies and channels as they surface is also behind the motivations for M&A to take place. To illustrate, the brand Drunk Elephant created a new category in skincare products – *Clean Beauty* – focused on delivering products not harmful to the skin's natural biocomponents. Its high surge in popularity and corresponding market share led Shiseido, a legacy brand of the beauty industry, to acquire the brand not only to position themselves into this new market segment focused on clean ingredients but to strategically expand into the US market, where this brand was mostly present at (Forbes, 2019). Another example was the brand Kylie Cosmetics, a brand created by the influential celebrity Kylie Jenner with a vast follower base in social media, whose 51% of shares were acquired by Coty, another legacy brand in the beauty industry. Looking to add into their core market of cosmetics and skincare, the brand was looking to expand further their international geography and entry new beauty categories (Cheng, 2019; Coty, 2020). Even though the considered indie boom icons Drunk Elephant and Kylie Cosmetics are being appropriated by the industry leaders, new challenger brands are taking their place and continuing to proliferate (Doyle, 2020).

Since a challenger brand focuses only on a niche segment of the industry it's inserted at and a leader brand has ownership of a large slice of the market and is commonly a global brand, it's possible to make a comparison between these with the concept of niche versus mass targeting. While challenger brands first appear with an unique proposition targeting a niche of the market that is being overlooked, leader brands have been around for several years and have acquired enough market share to be targeting the mass market. In the next chapter, it's possible

to see that challengers and leaders can be categorized as niche and mass cool due to their unique characteristics.

2.3 Brand Coolness

Coolness and popularity are often confused for being one and the same, however one does not necessarily imply the other. Warren & Campbell (2014, p. 544) define coolness as a “*subjective and dynamic, socially constructed positive trait attributed to cultural objects inferred to be appropriately autonomous*”. These four main attributes of coolness help raise several questions regarding consumers’ perceived characteristics of brand coolness and how they can change over time. Conceptual frameworks of coolness have already been presented in social media settings. For example, research showed that in order to assert influence on desired consumers, social marketing strategies should focus on conveying the key characteristics of cool. Attractive brand ambassadors could make the brand more desirable and looked up to by the target audience (Mohiuddin and Gordon, 2016). Even though some research had already been conducted over the cool attributes of brands (Mohiuddin et al., 2016; Sriramachandramurthy, 2009; C. Warren & Campbell, 2014), only recently did brand coolness get thoroughly conceptualized.

A brand could be identified as cool through the clear observation of the attributes proposed in the above definition: subjective, dynamic, positive, autonomous (C. Warren et al., 2019). The first defining attribute of coolness is subjectivity, suggesting that a brand’s coolness is perceived differently by each consumer. A brand is only considered cool to some extent by each consumer. Consequently, it’s impossible for a brand to be considered cool by everyone (C. Warren & Campbell, 2014). Secondly, a cool brand is dynamic. No brand starts being cool from day one, first it establishes itself as cool for a niche segment and then, the increase of its popularity might lead to being adopted as cool by the masses. The characteristics consumers assign to a cool brand can change over time and the brand itself can be considered cool one day and uncool the next. It’s difficult for a brand to sustain a certain level of coolness over long periods of time which is why they eventually lose their status and return to an uncool state. One of the major causes of losing the cool status is failing to keep up with the trends in the market and becoming incapable to differentiate themselves in consumers’ minds. Thirdly, coolness has a positive valence associated with it. Positive adjectives have always been used

to describe cultural objects or people themselves (attractive, useful, original, innovative). Therefore, a cool brand must be described with positive attributes to be considered as such. The fourth feature of coolness is autonomy, a brand can only be considered cool when it goes beyond the norms and conventions to distinguish itself from what's ordinary and consistently proves its position by adapting to shifts in trends (C. Warren et al., 2019). These dimensions of coolness offer a basis for identification of a cool brand's characteristics.

2.3.1 Characteristics of coolness

Warren et al. (2019) proposed 10 characteristics that are prototypical of cool brands based on this definition: useful/extraordinary, aesthetically appealing, energetic, original, authentic, rebellious, high status, subcultural, iconic and popular. Not all of these have to apply considering that there is vast diversity between brands. While some brands can be regarded as cool as a result of their rebellious and subcultural image, others can be cool due to their authenticity and originality. The final model proposed for brand coolness by the same author assumed desirability and positive autonomy as higher-order factors of brand coolness.

The first, desirability, encompassed desirable attributes of brands such as useful and extraordinary, energetic and aesthetically appealing. Useful/extraordinary suggests that brands that offer benefits to its consumers and seem to be extraordinary are potentially identified as cool brands. Another common characteristic found between cool brands was aesthetical appeal, consumers often mention the attractive appearance of the brand offerings. The last attribute that consumers feel makes a brand desirable, and thus cool, is energetic. Some consumers mention that cool brands are active, outgoing and offer them outstanding experiences. Examples of cool brands that are identified as energetic usually have a connection with sports and activities and are considered cool for consumers belonging to those subcultures. Cool brands are often desired by the consumers who perceive them to be cool, however coolness and desirability are not the same thing. While cool brands are often preferred and desired by people who want to stand out, people can still consider a brand cool and not feel desire towards it since they rather just fit in.

The second, positive autonomy comprised cool brands that appeared to be original and authentic to consumers. Autonomy had previously been identified as a characteristic of cool

cultural objects, including brands and people (C. Warren & Campbell, 2014). An original brand that does what hasn't been done before and continuously distinguishes itself from the others is considered cool by some consumers. Additionally, authentic brands that remain true to their origins instead of mimicking others and showing integrity and confidence in their traditional ways are also considered cool by some people.

Besides desirability and autonomy, the model presented consisted of five first order factors along with the mentioned two higher-order ones. High status, rebellious, subcultural, iconic and popular were the remaining characteristics of the model commonly identified by consumers when describing cool brands. Taking into account the prestige and exclusivity of luxury brands and their traditional role in establishing the trends in their industry, it makes sense for high status to be considered perceived as a characteristic of coolness. Rebellious brands are often identified as cool due to their diversion of behavior from the norm. For example, some authors previously discovered that a product whose design differed from the norm seemed cooler than another equally liked product with a norm conforming design (C. Warren & Campbell, 2014). Popular brands are considered to be cool among a group of consumers, they are often widely recognized and admired. Moreover, brands that manage to create symbolic value and experiences for consumers are considered iconic and perceived as cool. For example, Victoria's Secrets created its brand image with the symbolic element of angels using it in its events, physical and online stores as well as labels and designs.

Finally, cool brands are commonly associated with a subculture and usually these niche segments are responsible for giving the brand its cool status. Ripcurl, Ericeira and Billabong for example, became worldwide renowned brands due to a particular subculture: surf practitioners (A. Warren & Gibson, 2017). Eventually, these brands started being used by people outside this sport, having experienced mass coolness for a while. Despite seemingly less autonomous and rebellious for consumers, mass cool brands are able to price their items at a higher rate and get more exposure in the market than niche cool brands. That is until the original subculture (surfers) felt that the widespread adoption of these corporate surfing brands made them seem less autonomous and rebellious (C. Warren & Campbell, 2014) and later credited them as uncool, therefore complying with the life cycle model of brand coolness.

2.3.2 Life cycle of brand coolness

Brands initially become cool when associated with a subculture, then they get adopted by the masses when the brands become trendier and eventually transition back to the uncool status after they fail to adapt to shifts in the market (C. Warren et al., 2019).

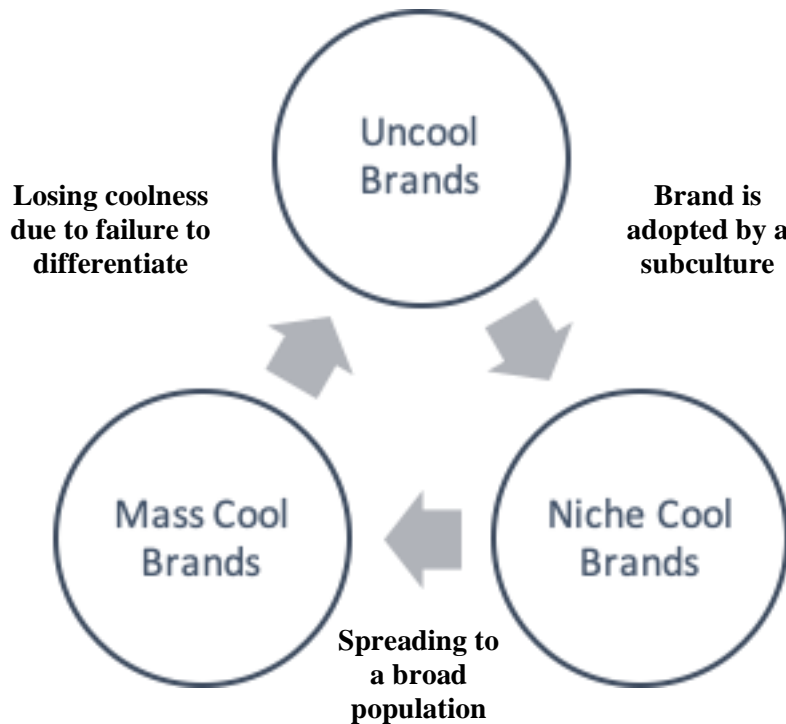


Figure 2.2 - Life cycle of brand coolness. Source: Warren et al., 2019.

Niche cool brands can be perceived as “rebellious, original, authentic, subcultural, extraordinary, aesthetically appealing, energetic and/or high status” while mass cool brands are perceived as “energetic, high status, popular, iconic, and/or moderately extraordinary, aesthetically appealing, original, authentic, rebellious and/or subcultural” (C. Warren et al., 2019, p. 41). Not all of the characteristics mentioned must be found at each stage of the cycle (Figure 2.2) due to the subjective and dynamic feature of brand coolness.

Brand coolness and the mentioned characteristics emerged as an indicator of brand success that facilitates the process of determining the relevance, desirability and transcendence of a brand for either niche or mass consumers (Loureiro et al., 2020). Relatedly, previous scholars found that brands described as desirable, autonomous, high status, popular and rebellious were perceived by consumers as being cooler than brands lacking these virtues (C. Warren et al.,

2019). Along these lines, the same authors tested to see if these qualities associated with a cool brand had a significant impact on consumers' attitudes, willingness to pay (WTP) and word-of-mouth (WOM) for the brand. The findings exhibited a significant effect of brand coolness in consumers' attitude towards the brand, WTP and willingness to discuss the brand with others (WOM) and therefore a partially mediated effect of these five characteristics (shown to increase brand coolness) on the same three variables. However, future research should be conducted on the direct effect of these characteristics of brand coolness on brand attitude, WTP and WOM as well as other relevant constructs.

2.3.3 Differences between niche and mass cool brands

Brands evolving through the different stages of coolness are perceived differently by consumers. Mass cool brands are considered to be less subcultural, original, authentic, rebellious, extraordinary and aesthetically appealing than niche cool brands. Yet, they are considered more popular and iconic than niche cool brands. Not only are a niche and a mass cool brand perceived differently by consumers in terms of characteristics, but so are the consequences associated with brand coolness. Previous research showed that consumers are more exposed to, intend to and share more WOM about mass cool brands than niche cool brands. Additionally, mass cool brands tend to have greater market presence and are priced at a higher tier than niche cool ones. Conversely, and due to the stronger relation with a subculture, consumers show a higher WTP for niche cool brands than mass cool (C. Warren et al., 2019).

Having just been conceptualized, brand coolness has not been thoroughly explored in several fields of study. However, one study has found that strong and positively valenced consumer perceptions of luxury values displayed by luxury fashion brands can predict its level of coolness. Thus, validating the construct of brand coolness in a luxury fashion brand context (Loureiro et al., 2020). Considered similar to the fashion industry, the beauty industry should be a valid setting to conduct research on niche and mass cool brands. To illustrate, one can make a comparison between challenger and leader brands in the beauty industry with niche and mass cool brands, respectively. A challenger brand enters the market targeting a niche segment and is adopted by a subculture that considers them cool, and a brand leader is

recognized as mass cool due to its popularity and a significant share of the market. As a result, brand coolness should be examined under this scope.

Additionally, as suggested by Warren et al. (2019), further research should be conducted on the direct influence of the characteristics of brand coolness in particular constructs such as WOM, since only the overall status of brand coolness was experimented on and found to have an impact on WOM. By using word-of-mouth to determine consumers' perceptions towards brand coolness, brands can try to convey the characteristics that can establish or maintain them as cool, which is why it's important to venture through this field of research. Brands can focus on cultivating a close connection to a niche segment if they are uncool at the moment, focus on spreading to a broader audience and targeting the mass market if considered niche cool, and focus on maintaining mass cool status by keeping in touch with their roots. Scholars have yet to examine word-of-mouth channels with regard to coolness due to the recent establishment of the concept. Hence, this dissertation contributes to the literature in this field by presenting an analysis of user-generated content on a social media channel (Instagram) to understand consumer's perceptions of brand coolness reflected in eWOM.

2.4 Consumer Brand Engagement

Numerous investigations have been conducted concerning the topic "engagement" across a vast number of academic fields, ranging from consumer psychology, business research to marketing management. Underlying the notion of engagement, several related concepts emerged in the marketing literature focusing on the dynamic relationship between consumer and brand. From the conceptualization of 'consumer-' and 'customer engagement' concepts (Brodie et al., 2011; van Doorn et al., 2010), to 'consumer brand engagement' (Hollebeek, 2011; Hollebeek et al., 2014), 'consumer engagement in a virtual brand community' (Brodie et al., 2013; Kaur et al., 2019), the variety of available engagement-based literature is proof of the substantial attention it has received.

One of the first general definitions of consumer engagement (CE) involved 5 fundamental propositions (FP) for further development. Customer Engagement was theorized from previous literature as:

“a *psychological state* that occurs by virtue of *interactive co-creative customer experiences* with a *focal agent/object* (e.g., a brand) in focal service relationships. It occurs under a specific set of context-dependent conditions generating differing CE levels; and exists as a *dynamic, iterative process* within service relationships that *co-create value*. CE plays a *central role* in a nomological network governing service relationships in which other relational concepts (e.g., involvement, loyalty) are antecedents and/or consequences in iterative CE processes. It is a *multidimensional concept* subject to a context- and/or stakeholder-specific expression of relevant cognitive, emotional and/or behavioral dimensions” (Brodie et al., 2011, p. 260).

Breaking this definition apart into its 5 FP, the first proposition asserts that CE describes a customer’s ‘psychological state’ brought on by the individual's interactive experiences with a particular object such as a brand. The second FP focuses on the dynamic nature of CE since its process – a sequence of gathered interactions - suffers variations over time, from short to long term. The third proposition highlights the relational aspect of CE with other concepts such as participation, involvement, and so on. These relational concepts function as antecedents or consequences in the engagement process, in which CE plays a central role. The fourth FP relates to the multidimensional outlook of CE, specifically the cognitive, emotional and behavioral dimensions observed in engagement situational contexts. The fifth and final FP points out the individuality of CE as a concept and its variability of intensity and complexity at different occasions, hence implying dissimilar engagement states.

Other general definition of consumer engagement differed from previous conceptualizations of engagement due to the assertion of CE holding a unidimensional scope that focused specifically on the behavioral component of engagement (van Doorn et al., 2010). Consequently, according to these authors, customer engagement could only be observed through behaviors (as for e.g. word-of-mouth, recommendations, reviews) which is not the case portrayed in the other designations of the construct. Consistent with Brodie et al. (2011)’s general definition of consumer engagement, ‘customer brand engagement’ was defined by Hollebeek as “the level of an individual customer’s motivational, brand-related and context-dependent state of mind characterized by specific levels of cognitive, emotional and behavioral activity in direct brand interactions” (Hollebeek, 2011, p. 790).

Despite consumer engagement's distinct meaning, the relationships (relational aspect) between customer brand engagement and other marketing constructs such as involvement, co-created value, brand experience, customer satisfaction, and so forth, have been explored in previous literature. In these investigations, definitions for those marketing constructs were stated and complemented with the nature of their relationship to consumer engagement and some unique indicators. The relational exchange with CE was identified as being antecedent or consequential. As an example, the taxonomy between customer brand engagement and brand loyalty was developed with support in the assertion of brand loyalty as a consequence of, and thus capable of being impacted by, customer brand engagement interactions (Hollebeek, 2011).

The interactive component of engagement was a common variable in these conceptualizations (Brodie et al., 2011, 2013; Hollebeek, 2011; Hollebeek et al., 2014) alongside the need for these interactions to occur between a focal subject (ex. consumer) and a focal object (ex. Brand and, firm, organization). The multidimensional aspect of engagement was explored in a vast number of engagement literature, with a few exceptions (van Doorn et al., 2010). Until 2014, there was no general consensus or exploratory research on the dimensions of engagement but some authors agreed, based on previous literature, that these dimensions were Cognitive, Emotional and Behavioral (Brodie et al., 2011, 2013; Hollebeek, 2011). With the 'conceptualization, scale development and validation of consumer brand engagement in social media' (Hollebeek et al., 2014), emerged empirical proof to sustain the development of engagement dimensions into 'cognitive processing', 'affection' and 'activation', which aligned with previous findings.

Henceforth, 'consumer brand engagement' (CBE) was declared as a fundamental concept addressing engagement, which was delineated as "a consumer's positively valenced brand-related cognitive, emotional and behavioral activity during or related to focal consumer/brand interactions" (Hollebeek et al., 2014, p. 154). The underlying CBE dimensions proposed in this article were cognitive processing, affection and activation, directly corresponding to the general 'cognitive, emotional and behavioral' dimensions. First, cognitive processing (corresponding to the cognitive dimension) relates to the considerations and thoughts involved in the process of a specific consumer/brand interaction. Second, affection (emotional dimension) refers to the degree of positive sentiment present in a particular consumer/brand

interaction. Third, activation describes the level of ‘effort, time and energy’ put into each consumer/brand interaction (Hollebeek et al., 2014).

A 10 factor CBE scale was proposed under the three dimensions of CBE:

Table 2.1 - Consumer Brand Engagement Scale.

Cognitive Processing

- Using [brand] gets me to think about [brand];
- I think about [brand] a lot when I’m using it;
- Using [brand] stimulates my interest to learn more about [brand]

Affection

- I feel very positive when I use [brand]
- Using [brand] makes me happy
- I feel good when I use [brand]
- I’m proud to use [brand]

Activation

- I spend a lot of time using [brand], compared to other [category] brands
- Whenever I’m using [category], I usually use [brand]
- [Brand] is one of the brands I usually use when I use [category]

Source: Hollebeek et al. (2014).

Furthermore, regarding the relational aspect of CBE, qualitative research findings suggest consumer brand ‘involvement’ functions as an antecedent of CBE, exerting a positive influence on it, and ‘self-brand connection’ and ‘brand usage intent’ as consequences of CBE. Other findings suggest that a strategy designed to increase consumer’s brand usage intent and self-brand connection can focus in activities nurturing consumer affection and activation instead of cognitive processing. From the three dimensions, affection was found to influence brand usage intent more significantly (Hollebeek et al., 2014).

2.4.1 CBE within an Online Context

Consumer engagement’s insertion within an online context has been the subject of recent research under the theme of engagement, by scholars within the business, consumer behavior and marketing field. Despite engagement in online environments had already been found to

influence advertising techniques' effectiveness (Calder et al., 2009), it was not before 2013 that Brodie et al. (2013a) conducted pioneering research examining the concept of consumer brand engagement under an online brand community context. Empirical findings were found to support one of the definitions, mentioned above, of consumer brand engagement based on 5 fundamental propositions (Brodie et al., 2011), through the use of a netnographic analysis which distinguishes itself for adopting ethnographic techniques to the study of online brand communities (further explained under the 'Methodology' chapter as the author of this dissertation resorts to the same research approach). Thus, the investigation succeeded in transposing the initial definition into an online brand community context.

Similarly, Hollebeek et al. (2014) conceptualization, scale development and validation of consumer brand engagement held under the investigations conducted in social media platforms, thus enlarging the scope of previous research from online brand communities to non-communities. Social media's exchange of communications makes it a suitable scenario for exploring the interactive nature of engagement. By facilitating interactions among its users, social media consequently improves consumer engagement with brands, organizations and each other. Thus, the scale proposed underlying 3 core dimensions of consumer brand engagement (cognitive processing, affection and activation) are suited for both brand and non-brand communities within online contexts (Hollebeek et al., 2014). Most authors (Bilro & Loureiro, 2020; Brodie et al., 2013; Hollebeek et al., 2014) support a multidimensional conceptualization of the construct, which focuses on cognitive processing (or cognitive), affection (or emotional) and activation (or behavior), versus a unidimensional one.

Recently, eWOM's information diversity and valence were found to produce an impact on user engagement, in fact, the more users share their opinions/reviews in an online community, the more will other users engage and share these communications. Thus, making available more diverse information on the firm being discussed and generating more discussion on it. In addition, the higher the level of valence in the communications, the more likely will there be a response from other users in terms of engagement (Nisar et al., 2020).

3 Methodology

Netnography, as a research method capable of providing consumer insight from online communities in their natural environment, was selected to conduct the investigation. The information that can be explored through netnography is similar to ethnography since they both focus on the study of communities and culture. While netnography focuses itself in the settings of online conversations, ethnography is a more open-model and capable of analyzing several cultural environments. However, by extracting publicly and readily available data from online conversations, netnography does not require the subjective observation of the researcher in the collection of data, unlike ethnography that relies on it. Thus, making netnography an unobtrusive, naturalistic, faster and less costly marketing research method. Examples of fundamental data capable of being extracted through a netnographic analysis include social media communications, online reviews, blog posts, information searches, among others (Kozinets, 2002).

The procedure followed during a netnography analysis begins with identifying a suitable online community to be subject to investigation. For an online community to be suitable, it must have a more focused research segment, higher traffic and messages, detailed data and more member to member interactions. The second step involves selecting and collecting between the vast amount of readily available data. Thirdly, the researcher must proceed to the analysis of the collected data.

In order to extract meaningful data to aid in solving this dissertation's research problematic, the research technique selected was Text Mining. Commonly referred to as Text Analysis or even Automated Textual Analysis, this methodology provides a tool for analyzing text in natural occurring environments both in online (e.g. online reviews, social media interactions) and offline (e.g. newspapers, song lyrics, annual reports) means of communication.

Text analysis' capability of "quantifying qualitative information to measure changes over time or make comparisons between groups" (Berger et al., 2020, p.7) has led to several research materials, despite its initial controversy caused by the use of emerging technologies in its process such as Natural Language Processing (NLP) and Machine Learning. This methodology can either be used to predict through statistical modeling, (for e.g. predict customer

preferences, likelihood of a video going viral) or to understand behavior, how text emerging from communications between firms and consumers, and among each other, can have an impact on the audience it encounters.

Why do users feel positive or negative about a publication? Can user communication drive market and individual behavior? Previous marketing research using text analysis has been conducted: the number and average star ranking of book reviews on a site have been shown to be correlated to sales (Chevalier & Mayzlin, 2006); chatter, in the form of product reviews, has been shown to have an effect on stock performance – negative chatter increases volatility while the volume of chatter is strongly related with market returns (Tirunillai & Tellis, 2012). These authors also highlighted the more intense effect of negative chatter versus positive one. Researchers have also applied textual analysis for creating prediction models: physiological arousal drives the virality of content, content that provokes high-arousal positive or negative emotions, surprise, interest is more viral than others (Berger & Milkman, 2012).

A text mining approach needs to follow a procedure to ensure results are valid for examination. Following the proposed procedure of recent published literature on textual analysis (Berger et al., 2020), below are the steps to take into consideration:

- Data preprocessing – acquisition and handling of data;
- Performing a text analysis of the resulting data – choosing between the different tools available to enable entity extraction (extracting the meaning of each independent word), topic modelling (word combinations) or/and relation extraction (textual relationships between words);
- Converting the text into quantifiable measures
- Corroborating the tools utilized and data results through internal or external validation.

Before diving into the process followed during this textual analysis, it's important to mention to which intent is being applied this methodology, as well as the environment and context selected for analysis, including the reasons for selecting the underlying data and whether it is suitable or not to perform a netnographic analysis. This research will contribute to the literature using Textual Analysis tools in the fields of marketing strategy and consumer behavior by using text, in the form of social media conversations among a brand community,

for understanding the impact of user-generated content on constructs such as brand coolness and consumer brand engagement.

3.1 Contextual Environment of the Underlying Data

To guarantee that the marketing instrument under analysis was unbiased, selected the luxury skincare brand Drunk Elephant was selected, since it doesn't recur to other types of marketing strategies other than WOM/eWOM. While most beauty brands rely on paid partnerships or advertisement, DE relied solely on the power of communication among its community to gain popularity and reach the status it currently enjoys. From challenger brand entering the Beauty Market in 2012, standing for ingredient transparency - *Clean Beauty* - before it was a trend, to being purchased in 2019 for \$845 Million by one of the major players of the cosmetic industry: Shiseido, Drunk Elephant has been declared one of the fastest-growing skincare brands in history (Forbes, 2019). The digitally native brand became an icon among the indie brands in beauty for creating a blue ocean inside the industry through the proposal of a new category, strong social media presence and nurturing relationship ties with their online brand community. The recent acquisition by Shiseido helps expand the brand from the western market into their cross-global networks (Shiseido, 2019). In 2019, DE sustained \$120 million in sales and was ranked as either number 1 or 2 skincare brand in all of its retail partners, particularly Sephora – one of the main retailers of cosmetic products in the western market (Masterson, 2019).



Figure 3.1 - Drunk Elephant's logo. Source: Drunk Elephant.

Drunk Elephant (Figure 3.1) was responsible for instigating a movement on Instagram, the social media platform, where it encouraged members of its community to share posts with selfies of their bare faces (no make-up) and describing their journey to a clear skin through the

use of DE’s products. These user-generated content posts needed to be tagged with the (hashtag) #barewithus🐘 so that the brand could later repost them on its profile. In every repost, DE added the user’s original photo description plus additional copy promoting other users to generate content, as you can see in the example below:

“That Drunk Elephant has been doing my face some wonders! 🐘 I switched up my



Figure 3.2 - Drunk Elephant's UGC Post. Source: Drunk Elephant's Instagram Profile.

skincare routine about 4 months to all #DrunkElephant products, including their eye creams and #babyfacial. I've had acne-prone skin with dark spots, along with bags and wrinkles by the eyes for 38 years... so I definitely can see a difference! #nofilter #nomakeup except a little mascara on the eyes and gloss on the lips.' - @christybigjohny.

What's your #barewithus🐘 story? We want to see your beautiful face. Tag us #barewithus🐘 in your selfie with your full DE routine—we'll be gifting our favorites DE goodies every month! (Drunk Elephant (@drunkelephant), Fotos e Vídeos Do Instagram)".


This Instagram consumer movement #barewithus🐘 was uniformly adopted across the brand's platforms but for the development of this research, and due to the high amount of data capable of being extracted as DE's user-generated content, a sample from the comments of

posts using the #barewithus🐘 hashtag on Instagram will function as one of DE's online brand communities to be considered for the text mining approach. (Drunk Elephant, 2020). Users on Instagram sharing and commenting content published under the #barewithus🐘 qualify as suitable to conduct a netnographic analysis as they verify all the necessary conditions mentioned above: have a more focused research segment, higher traffic and messages, detailed data and more member to member interactions. Having explained the context from which the data for analysis was selected, then it's necessary to elucidate the readers of this dissertation to the process the author underwent to gain the insights necessary to answer the research hypothesis.


3.2 Data Collection and Preparation

First, and taking into account the guidelines published recently to conduct text analysis research, the first step was focused on data acquisition. Social media has recently been under the spotlight for research purposes due to the natural and unforced consumer opinions and sentiments there displayed. Through textual analysis it's possible to analyze trending topics, opinions and sentiments in the consumer comments on social media platforms. Since the objective of this dissertation is to uncover the impact of user-generated content on consumer's perceptions of brand coolness and brand engagement, the natural occurring conversations on published user-generated content on social media is the most suited environment for investigation.

The platform chosen for acquiring the data was Instagram, a social media network site, exclusive to mobile phones when it first came to existence in 2010 (Instagram, 2020). The app allowed editing and sharing of photographs and videos, which would form a user's profile on the network leading to an aggregated data base of user content available for public display. In addition, each user could comment or like the post published on the network, similar to the process available on other existing social networks like Facebook. Due to its worldwide availability, Instagram has a substantial amount of data capable of being extracted. In 2018, the network reported more than "1 billion monthly active users" proving itself a leader within mobile social apps (Statista, 2020b).

The platform's reach played an important role in consumer shopping behavior due to its capability of influencing consumers attracted to the lifestyle there displayed. This particular characteristic of the network inspired companies to enter the platform and start advocating their products and brands, while simultaneously bringing other users to advocate for them, the so-called influencers. Hashtags, user-generated tagging meant for other users to find information relevant to them easily (since hashtags could be searched for on the search bar of the network), became frequently used in social media, Instagram included. As previously mentioned above, Drunk Elephant's instigation of a movement on Instagram using the hashtag (#barewithus ) made the comments published on the posts tagged with this hashtag, a viable representation of the brand's online brand community. Through the extraction of these comments, it would be possible to analyze the interactions with and perceptions towards the brand from the brand's online community in user-generated content posts on the platform.

3.3 Sample

From the substantial amount of data generated by users tagging the brand Drunk Elephant or one of the hashtags it created (#barewithus, #drunkinlove, #babyfacialsunday, and so on), a sample of 67321 comments was extracted from the 1756 posts tagged with the #barewithus  published on Instagram during a single year (Jan 1st to Dec 31st of 2019) to avoid seasonal phenomena. The activity sector of the chosen dataset is the cosmetic industry due to the lack of research conducted despite being such a relevant area in the current times. Worth \$532 billion as of 2019 (Danziger, 2019), the rapid growing beauty business houses numerous research opportunities. The hashtag chosen is explained by its significant role in the creation of an online community surrounding the brand through user-generated content (as mentioned above in the context selected for investigation purposes).

The resulting sample size was in line with other investigations conducted using textual analysis methodologies (Chakraborty et al., 2020; Mcgurk et al., n.d.; Zhong et al., 2016). The sample characterization (Table 3.1) could only be detailed to a certain extent since the extraction tool only retrieved certain data from each interaction (username, user's profile URL, user's profile picture URL).

Table 3.1 - Sample Size and Characteristics.

Sample Size and Characteristics	
N	67 321 comments
Brand	Drunk Elephant
Activity Sector	Luxury Cosmetic Industry
Online Brand Community	Instagram
User typology	Users that interacted with the posts published during the year of 2019 under the #barewithus🐘
Sample Research Period	From January 1 st to December 31 st of 2019

To extract the textual data from users' comments on Instagram, a web scraping tool was used, whose services range from scraping this social media platform to extracting comments, posts, likes and followers to a Google Sheets or Excel Spreadsheet, to downloading Instagram videos, stories, among others. The services used from InstaLoadGram (*Instaloadgram*, 2020), the web scraping tool, involved extracting all the comments from the dataset above into an excel spreadsheet. The information retrieved filled out the following fields: (i) comment publication date, (ii) timestamp, (iii) comment (text) written on the post tagged with the #barewithus🐘, (iv) username of the user who wrote the comment, (v) user ID, (vi) URL of the user's profile, (vii) URL of the profile picture of the user, (viii) comment ID, and (ix) the post URL where the comment was published.

Second, it was decided that for the present research the analysis performed would be entity extraction. Entity extraction consists in extracting the meaning of each word or phrase individually. This technique can be used to monitor social media conversations, to generate entities capable of being used in predictive models or to be input into dictionaries capable of leading more complex and focused investigations. Many platforms (ahrefs, SEMrush, SimilarWeb) have harnessed the usefulness of entity extraction, for example, in discovering trending topics across social media; the amount of times a brand is mentioned in comparison with its competitors. Common tools capable of Entity Extraction include the use of dictionaries, sentiment analysis and machine learning tools.

In this dissertation's case, a sentiment analysis was chosen to extract the sentiments in the text along with the individual entities in there identified. Sentiment analysis allows the

researcher to explore what was written (content) as well as how it was written (state). Previous studies resorting to sentiment analysis have been published: the consumer sentiment towards firm's active participation between consumer conversations in online communities showed diminishing returns (Homburg et al., 2015); impact of UGC and FGC in firm performance and user engagement within online communities (Nisar et al., 2020). The first study found that firms need to take into consideration that their active participation might be hurting consumer engagement. Similarly, the second study found that users feel less empathy towards firm-generated content (FGC) than user-generated content (UGC). The higher the levels of valence of FGC, the lower would users relate to the content. For instance, if the firm posted very positively about itself, it would make users doubt the credibility of their affirmations and thus potentially damage the reputation of the firm.

A Global Sentiment Analysis and a Topic Sentiment Analysis were conducted with the assistance of an add-on for Microsoft Excel from a text mining tool, MeaningCloud (*MeaningCloud*, 2020), capable of performing sentiment analysis, text clustering, topics extraction, among others. Several scholars (Loureiro et al., 2019; Martínez et al., 2016; Rosado-Pinto et al., 2020) have previously used MeaningCloud to lead investigations where they analyzed the data through text mining techniques, therefore validating the tool for such purpose. Using MeaningCloud to perform the global sentiment analysis allowed to analyze the text and classify it according to its polarity, subjectivity, irony and emotional agreement, while performing the topic sentiment analysis allowed to extract relevant entities from the text such as people, organizations, time, quantities, hashtags, phone numbers and so forth. Furthermore, not only does the topic sentiment analysis enable the identification of those entities as topics, but it also comprises the frequency of the topics being discussed, and the sentiment polarity expressed in each topic.

MeaningCloud's topic sentiment analysis can extract more than 200 classes of entities, that are classified according to a predefined hierarchy, commonly known as an ontology. For researchers intending to study specific domains that feature their own characteristic concepts and terms, a dictionary can be added to the text mining tool therefore adapting the API to their field of study and functioning as a guide for the tool. An example of research that would gain from adding a dictionary to the lexicon available in MeaningCloud, for Natural Language

Processing (NLP) techniques, would be a textual analysis in the field of biomedicine. The dictionary could include the name of medicines, diseases, biochemicals, among others.

To adapt the text mining tool to the context (social media brand community in the beauty industry) where the research is being conducted and to the constructs being investigated, an aggregated dictionary based on previous literature of Consumer Brand Engagement and Brand Coolness was built. This dictionary was constructed basing the consumer brand engagement dimensions in a previously developed dictionary (Bilro et al., 2019), and the brand coolness dimensions in the recently defined concept (C. Warren et al., 2019), which resulted in the ontology tree you see below (Figure 3.3). The dimensions measured for consumer brand engagement were cognitive processing, affection and activation (3 items), whereas for brand coolness were measured the desirability, positive autonomy, rebelliousness, high status, popularity, subcultural and iconic dimensions (Table 3.2). Based on the top 3 words for each dimension, the dictionary was expanded using a thesaurus based on WordNet 3.1 (George A. Miller, 2010), a lexical database dictionary specifically designed to employ in NLP. In the end, the constructed dictionary contained 497 entities (words) to be deployed into MeaningCloud that would add to the already available NLP dictionary in the text mining tool.

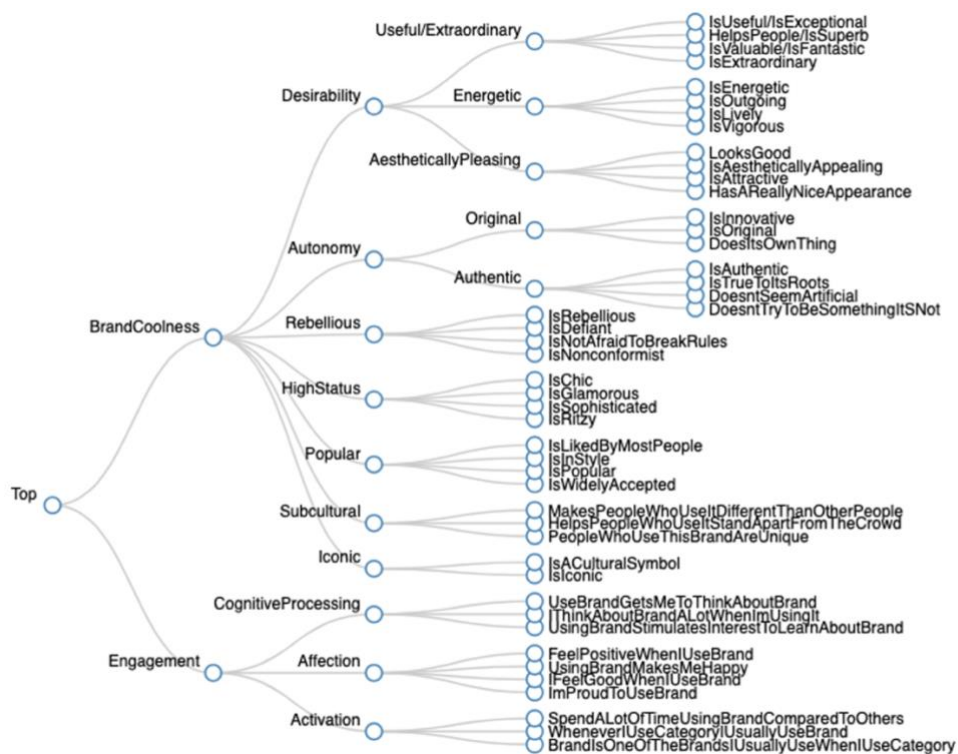


Figure 3.3 - Ontology Tree from Dictionary of Consumer Brand Engagement and Brand Coolness. Source: MeaningCloud.

Table 3.2 - Brand coolness and consumer brand engagement dictionary with the top three words for each dimension.

		Top three words for each dimension				
Brand Coolness	Desirability	Is useful/Extraordinary	Useful	Extraordinary	Helpful	
		Helps people/Is Superb?				
		Is valuable/Is fantastic?				
		Is extraordinary?				
			Is energetic?	Energetic	Extrovert	Lively
			Is outgoing?			
			Is lively?			
			Is vigorous?			
			Looks good?	Beautiful	Pretty	Appealing
			Is aesthetically appealing?			
Is attractive?						
Has a really nice appearance?						
Positive	Autonomy	Is innovative?	Innovative	Original	Creative	
		Is original?				
		Does its own thing?				
		Is authentic?				Authentic
Is true to its roots?						
Doesn't seem artificial.						
Doesn't try to be something it's not.						
Rebellious		Is rebellious?	Rebel	Challenger	Unconventional	
		Is defiant?				
		Is not afraid to break rules?				
		Is nonconformist?				
High Status		Is chic?	Chic	Style	Posh	
		Is glamorous?				
		Is sophisticated?				
		Is ritzy?				
Popular		Is liked by most people?	Likable	Popular	Trendy	
		Is in style?				
		Is popular?				
		Is widely accepted?				
Subcultural		Makes people who use it different than other people.	Admirable	Unique	Stands out	
		Helps people who use it stand apart from crowd.				

		People who use this brand are unique.			
	Iconic	Is a cultural symbol? Is iconic?	Cultural	Iconic	Symbolic
Consumer Brand Engagement	Cognitive Processing	Using [brand] gets me to think about [brand]. I think about [brand] a lot when I'm using it. Using [brand] stimulates my interest to learn more about [brand].	Think about	Consider a lot	Find out more
	Affection	I feel very positive when I use [brand]. Using [brand] makes me happy. I feel good when I use [brand]. I'm proud to use [brand].	Positive/ Negative	Joy to use	Proud to use
	Activation	I spend much time using [brand] compared to other [category] brands. Whenever I'm using [category], I usually use [brand]. [brand] is one of the brands I usually use when I use [category].	Spend time	Usually use	Reuse

Source - Hollebeek et al. (2014).

Third, the validation of the extracted text and measures utilized were assessed internally through the validation of the dictionary employed and as it was stated earlier, through the mentioned authors that have previously used the MeaningCloud tool to perform textual analysis. A final step was taken to ensure manual validation of the engagement dictionary developed for the current study by using the help of two experts in the domain of the study.

Fourth, the results from both analyses generated by MeaningCloud were converted into quantifiable measures. In the global sentiment analysis, the polarity of each comment was classified from a scale of P+ (very positive), P (positive), NEU (neutral), N (negative), to N+ (very negative). However, to perform a statistical analysis, this scale was converted into numerical figures as seen on Table 3.3. Furthermore, each comment was also classified according to its agreement, irony and subjectivity as seen on Table 3.4.

Table 3.3 - Polarity Scale.

Polarity Scale	Polarity Meaning	Numerical Polarity Scale
P+	Very Positive	5
P	Positive	4
NEU	Neutral	3
N	Negative	2
N+	Very Negative	1
NONE	None	0

Table 3.4 - Irony, Subjectivity, Agreement Scale.

Metrics	Possible Outputs	
Irony	Ironic	Non-Ironic
Subjectivity	Subjective	Objective
Agreement	Agreement	Disagreement

From the topic sentiment analysis, 264 topics (Annex A; Annex B), their frequency and polarity, were identified by MeaningCloud. To allow for further investigation of the results, these topics were grouped according to their similarity into 12 major groups and 30 clusters (Table 3.5). The selection and denomination of these clusters was left to the judgement of the researcher since topic extraction is a very sensitive technique that often needs reviewing to facilitate the interpretation of results (Berger et al., 2020). After the conversion of the polarity scale and the grouping of the 264 topics into clusters was finalized, these were allocated to the output spreadsheet in order to replace the previous scale and topics, respectively. Subsequently, these measures allowed the researcher to identify the sentiment polarity for both each user comment and each cluster. The output from this textual analysis was followed by the interpretation of its results in order to infer conclusions necessary in a netnography analysis. The data extracted from the natural occurring communication exchange in social media is essential to understand what online brand communities express through user-generated content in a natural occurring environment, as the comments are a reflection of the users' sentiments without interference of external parties, capable of having significant impact on its readers. It is also intended to comprehend what is the impact of user communications in their perceptions of brand coolness and engagement with the brand.

Table 3.5 - Topic Clustering.

Groups Identified	Clusters - Definition
Brand Coolness	Desirability (useful, extraordinary, energetic, aesthetically appealing)
	Autonomy (original, authentic)
	Subcultural (distinctive culture such as a surf or a dance community)
	Iconic (cultural symbol)
	Popular (widely accepted and liked by most people)
	Rebellious (defiant to mainstream standards)
	High Status (prestige, social class)
Consumer Brand Engagement	Cognitive Processing (Considerations and thoughts involved in a consumer/brand interaction)
	Affection (Degree of positive sentiment in a consumer/brand interaction)
	Activation (Level of time and effort depleted in a consumer/brand interaction)
Person	Person (ex: full, first or last name, nickname, social media handle)
Living Thing	Animal (ex: elephant, cat, puppy, bug)
	Body - or body parts (ex: skin, head, face, hair)
Timex	Time (period, date)
Unit	Unit (ex: temperature, volume, currency)
Location	Places (ex: country, city, building, airport)
	Nature (ex: sea, mountain, moon, planet)
Events	Events - social (party, dinner) or natural phenomena (rain, wind, cold)
Organizations	Company (ex: Sephora, Virgin, Chanel, Urban Outfitters)
	Organization – Public, Sports or Artistic (ex: NASA, army, band)
	Groups (ex: family, duo, couple, community)
Product	Products and Services (ex: book, video, song, service, machines)
	Ingredients - in Beauty Products (ex: aloe vera, coconut, acid, cream)
	Beauty Products and Services (ex: cosmetic, exfoliation, bottle, botox)
Other Entities	Disease (ex: skin related concerns such as acne, eczema, scars)
	Entities (ex: doctrine, language, religion, law, award)
	Vocation and title (ex: doctor, dermatologist, job)
	Color (ex: blue, red, yellow)
	Others
Process	Process (ex: acquisition, performance, update, start)

4 Results

The textual analysis performed over 67321 Instagram comments from the posts published under the #barewithus🐘 during the year of 2019 was meant to understand the impact of user-generated content in:

1. The general sentiment, irony, subjectivity and agreement expressed by the brand's community members in the comments of such posts (generated user content), in other words, how users generally feel towards UGC;
2. The topics, organized into clusters to facilitate analysis, discussed in the comments, specifically the frequency of each cluster and user sentiment towards each of them;
3. The community members' perception of brand coolness and consumer brand engagement.

To understand the conceptions above, a global sentiment analysis followed by a topic sentiment analysis were conducted. For the 1st point stated above, the researcher conducted a global sentiment analysis (GSA) capable of classifying each comment regarding its sentiment polarity (as positive, neutral or negative), subjectivity (objective or subjective), irony (ironic or non-ironic), and agreement (agreement or disagreement). Sentiment polarity would convey the general sentiment of users in their comments, if they were positive, negative or neutral. Subjectivity would distinguish if users were more biased or factual in their comments on the UGC. Irony would determine if users were being insincere. Agreement would evaluate if the user displayed agreeing or contradictory opinions towards the post.

The 2nd point was assessed through a topic sentiment analysis (TSA), which allowed to take conclusions on the trending topics arising from user interactions in UGC posts. Both the frequency and sentiment polarity of each cluster were measured during this investigation in order to assert which topics are more discussed between users and how do they feel towards them.

Last but not least, the 3rd point was investigated simultaneously along with the 2nd point, through the addition of an aggregated dictionary to the topic sentiment analysis. To reach conclusions concerning specific fields of study, the researcher felt the need to include a dictionary containing specific entities of the constructs of Brand Coolness and Consumer Brand Engagement. In the previous chapter, it's possible to perceive the process used to create the

aggregated dictionary of these constructs. After importing the aggregated dictionary into the MeaningCloud platform, the frequency and sentiment polarity of each dimension belonging to each construct were measured. In other words, the characteristics defining each construct were identified in the community's conversations and classified according to their sentiment, together with the other topics identified by the MeaningCloud tool. Henceforth, the analysis of the output from this investigation made it possible to (1) uncover the community's perception of the brand's coolness and (2) how engagement is exhibited in the community's interactions with the brand. This data is essential to picture how the brand is considered cool by users (which dimensions of coolness are more significant for the brand's community: desirability, autonomy, rebellious, high status, popular, subcultural, iconic), and how users engage with the brand (which dimensions of engagement are more exhibited in the interactions: cognitive processing, affection, activation).

4.1 Global Sentiment Analysis

Concerning the global sentiment analysis, all user comments can be classified according to their i) polarity, ii) subjectivity, iii) agreement/disagreement, and iv) irony. Regarding polarity, it was found that 74,98% of user comments reveal positive sentiment, 20,79% of comments' sentiment was considered neutral, and 4,23% reveal negative sentiment (Table 4.1). From the 4,23% negative comments, only 0,33% are very negative. Overall, it's possible to observe a majority of positive comments towards the user-generated contents posted during the research period. The confidence interval of polarity resulted in a very substantial average of 99,08 (ranging from 0-100), having a standard deviation of 2,86, which shows a low dispersion of the results.

Table 4.1 - Comments' polarity scale, positive to negative (GSA).

Polarity Scale		Sum	%	P-N %
P+	5	7026	10,44%	74,98%
P	4	43450	64,54%	
NEU/NONE	3	13994	20,79%	20,79%
N	2	2630	3,91%	
N+	1	221	0,33%	4,23%
Total		67321	100,00%	100,00%

Note: P-N% refers to positive comment group and negative comment group

Table 4.2 - Comments' irony, subjectivity, and agreement (GSA).

Sentiment analysis								
Non-ironic	66861	99,32%	Subjective	33946	50,42%	Agreement	61447	91,27%
Ironic	460	0,68%	Objective	33375	49,58%	Disagreement	5874	8,73%

Table 4.2 refers to the results of the global sentiment analysis regarding the level of irony, objectivity and agreement of each comment. The analysis showed that the majority of the published text was not ironic (99,32%), and mostly expressed agreement (91,27%) in the comments concerning the UGC posts of Drunk Elephant's brand community. However, even though the majority of subjective comments (50,42%) can be claimed due to a high confidence interval, there is still a significant level of objectivity in the comments (49,58%) roughly dividing them in half.

4.2 Topic Sentiment Analysis

Following the global sentiment analysis, the topic sentiment analysis revealed the following results: in Table 4.3 - the frequency of topics identified in the interactions created by the users, in Table 4.4 - the quantity of negative/neutral/positive polarity found in the topics, and in Table 4.5 – the sentiment polarity mean found for each topic. From the 67 321 comments extracted from the posts, 164 612 sentiment polarities were accounted for within 264 topics identified. As mentioned in the previous chapter, these 264 topics were gathered into 12 major groups, comprising 30 clusters to facilitate examination. These topics include the dimensions defined in the aggregated dictionary added to the MeaningCloud tool.

The frequency of the topics can be found within Table 4.3 and according to the data detailed, the most frequent topic discussed is "Person" (38,40%) referring to a person's name and social media handle (username) which was expected since users of this social media network tend to identify other users in the comments they write to bring those users' attention to the publication. This data infers that the content posted by users under the hashtag created by Drunk Elephant generates sharing between users and their acquaintances, thus being capable of expanding the brand's community without interference from the actual brand.

Table 4.3 - Frequency of topics in clusters (TSA).

Clusters	Sum	%
Person	63214	38,40%
Brand Coolness > Desirability	31036	18,85%
Consumer Brand Engagement > Affection	9951	6,05%
Others	9288	5,64%
Products and Services	6293	3,82%
Brand Coolness > Popular	6095	3,70%
(blank)	5934	3,60%
Body	4871	2,96%
Consumer Brand Engagement > Cognitive Processing	3914	2,38%
Consumer Brand Engagement > Activation	3827	2,32%
Ingredients	3348	2,03%
Company	2971	1,80%
Places	2860	1,74%
Brand Coolness > Autonomy	2424	1,47%
Beauty Products and Services	1335	0,81%
Entities	849	0,52%
Vocation & Title	779	0,47%
Events	742	0,45%
Groups	664	0,40%
Nature	612	0,37%
Animal	603	0,37%
Disease	557	0,34%
Brand Coolness > Subcultural	498	0,30%
Unit	344	0,21%
Color	330	0,20%
Time	266	0,16%
Organizations	251	0,15%
Brand Coolness > Iconic	244	0,15%
Process	241	0,15%
Brand Coolness > High Status	166	0,10%
Brand Coolness > Rebellious	105	0,06%
Total	164612	100,00%

The second topic ranked with a higher frequency is “Desirability” (18,85%), one of the dimensions of Brand Coolness. Desirability includes 3 main components characteristic of brand coolness: “Extraordinary/Useful”, “Energetic” and “Aesthetically Appealing” (C. Warren et al., 2019). Desirability measured the extent to which brands seemed “exceptional”, “valuable/fantastic”, “extraordinary” and “useful” (Extraordinary/Useful), “energetic”, “outgoing”, “lively” and “vigorous” (Energetic), and that seemed “attractive”, “aesthetically appealing”, seemed to “look good” and “have a really nice appearance” (Aesthetically Appealing) to users (C. Warren et al., 2019). In other words, members of Drunk Elephant’s community seem to associate these characteristics (positively or negatively) to the brand on UGC posts. Taking into account the high frequency of the topic “Desirability” found in the comments, the sentiment polarity the users feel (positive or negative) towards this dimension of brand coolness is very significant.

The third topic with the highest frequency count is “Affection” (6,05%), one of the dimensions of Consumer Brand Engagement. Affection refers to the degree of positive sentiment involved in the interactions taken between a consumer and a brand. Affection is measured to the extent to which users seem to feel “positive”, “happy”, “proud” and “good” when they use a brand (Hollebeek et al., 2014). DE’s community members seem to demonstrate affective attributes in their engagement with the brand on UGC posts. The significant level of frequency of this topic gives relevance to the degree of sentiment expressed by users in their engagement with the brand. The three topics mentioned above account for 63,3% of the total topics recognized in the comments, which not only highlights the importance of UGC for spreading word of mouth for the brand and growing the brand’s community, but also emphasizes the importance of the constructs being investigated for brands and the content users post about them.

Table 4.4 - Topics’ polarity scale, positive to negative (TSA).

Polarity Scale		Sum	%	P-N%
P+	5	14517	8,82%	50,23%
P	4	68165	41,41%	
NEU	3	70249	42,68%	42,68%
N	2	5123	3,11%	3,49%
N+	1	625	0,38%	
Total		164612	164612	100,00%

Note: P-N% refers to positive comment group and negative comment group

From the topic sentiment analysis, it's also possible to evaluate the general sentiment polarity of the topics found. There were only an insignificant number of topics that the textual analysis tool was not capable of determining the sentiment polarity. The resultant data of this analysis shows, in Table 4.4, a majority of positive topics (50,23%), a vast amount of topics with neutral sentiment (42,68%), and only 3,49% of topics were considered negative. To get a more detailed vision of the users' sentiments towards each topic, the results of the TSA are further depicted in Table 4.5.

The cluster ranked with the highest sentiment polarity average ($\bar{x} = 4,203$; $SD = 1,019$) and therefore being the most strongly positively discussed topic, is cognitive processing, one of the dimensions of consumer brand engagement. This dimension refers to the consideration involved in the process of a consumer/brand interaction. This suggests that users have strong positive feelings when mentioning their thoughts and considerations on the brand and its use, even if they don't discuss it often (Table 4.3: 2,38%). Two examples that clearly show this are: “(@coffeandeyecreams:) I had someone ask me what foundation I use- I told her I do Babyfacial once a week! #barewithme”, “(@mikesmexican:) I use my @drunkelephant everyday. I can't let anything else touch my face.”

The next cluster with the highest polarity mean is desirability, which was both classified as the second most frequent topic (Table 4.3: 18,85%) discussed by users and as the second cluster with the most positive feelings associated to it ($\bar{x} = 3,920$; $SD = 0,707$). As one of the dimensions of brand coolness, desirability denotes the level of attraction felt by users towards the brand. Whether they perceive the brand as aesthetically appealing, energetic or extraordinary/useful, it is possible to assert that users very often show their desire for the brand on the comments of the UGC posts. Examples demonstrating each of the attributes of desirability respectively are as follows: “(@huynhingskin:) Gorgeous! DE products are always aesthetically pleasing” -Aesthetically appealing, “(@skincarepsychology:) Excited to try DE products soon” - Energetic, “(@drunkelephant.life:) Your skin is gorgeous Alisa! So happy for you and love hearing how DE has given you such great results!!!” – Useful/Extraordinary.

Affection, one of the dimensions of Consumer Brand Engagement, was identified as the 3rd most discussed topic (Table 4.3: 6,05%) as well as the 3rd cluster with higher polarity mean

(\bar{x} = 3,906; SD = 0,426). From this data it's possible to claim that users often discuss their strong positive sentiments towards the brand in UGC. As can be seen in the following examples: “(@thechicsbeauty:) Love this DE faves”, “(@blendedbeautyblurbs:) I love love the littles such perfect travel sizes and perfect to try out DE”, “Some of my favs here”.

In contrast, Disease, referring to skin related conditions such as acne, eczema, rosacea, or other abnormal conditions affecting a person's regular function, was the cluster ranked with the lowest polarity average (\bar{x} = 2,718; SD = 0,840), which was to be expected due to the negative connotation attributed to diseases in general. Taking into account that the #barewithus 🐘 encourages users to share their challenging history with skin related diseases, it makes sense for this topic to have negative sentiment attached. As an example: “(@yesika_pas:) Im sick and tired of trying everything on my face to fight acne i've had enough. Tell me if this really works please” is one of many similar comments on UGC posts that justify the negative sentiment felt towards diseases. However, the low frequency of the topic Disease (Table 4.3: 0,34%) indicate that few users discuss their negative feelings towards this topic in UGC content. While the initial comment of a post usually refers to the user's uneasy past with skin concerns, the remaining comments mostly have a positive connotation to them, either supporting the user who published the post or the brand for helping the user in his/her journey to better skin.

The second next cluster found to have low polarity sentiment was Rebellious (\bar{x} = 2,924; SD = 0,817), used to express defiance to the mainstream standards. Hence, this low polarity joined with the low frequency of this topic (Table 4.3: 0,06%) reveal that users do not think of the brand as possessive of rebellious traits thus coming to the conclusion that this is not why they perceive Drunk Elephant as a cool brand.

Regarding the last consumer brand engagement dimension's polarity results, Activation was found to have an almost positive classification (\bar{x} = 3,581; SD = 0,712) in the polarity scale, which shows relatively positive feelings from customers on the level of input (time and effort) they dedicate to their interactions with the brand. Proceeding to the last dimensions from Brand Coolness, it was observed that Popular (\bar{x} = 3,679; SD = 0,651) and High Status (\bar{x} = 3,675; SD = 0,788) also experienced relatively positive feelings from the users writing about them. Drunk Elephant mainly established itself as a known brand through social media

marketing, which explains the positively valued sentiment expressed in a fair amount of comments (Table 4.3: 3,70%) on Instagram posts with regard to its popularity. Additionally, the brand's positioning strategy puts it just below luxury skincare products with its somewhat high prices and limited availability, therefore it's natural, even if this was just mentioned in a few comments (Table 4.3: 0,10%), for users to feel positively to DE's high status. It's also important to mention that its low frequency shows that High Status is not one of the most reflective characteristics of Brand Coolness for the users.

Similarly, Iconic (Table 4.3: 0,15%) and Subcultural (Table 4.3: 0,30%) topics are not frequently discussed by users and therefore don't have a significant impact in their perception of Drunk Elephant as a cool brand. Finally, Autonomy is somewhat mentioned (Table 4.3: 1,47%) among the comments, with a slightly positive polarity sentiment ($\bar{x} = 3,540$; $SD = 0,704$). This implies that users positively perceive the brand as original and authentic, the underlying characteristics of an autonomous brand (C. Warren et al., 2019). One final comment to be made is that none of the clusters present a negative sentiment polarity average, reinforcing the existence of few negative results (Table 4.3: 3,49%), shown on Table 4.5.

Table 4.5 - Clusters' polarity sentiment analysis (TSA).

Clusters	Mean	SD	VAR [X]
Consumer Brand Engagement > Cognitive Processing	4,203	1,019	1,038
Brand Coolness > Desirability	3,920	0,707	0,500
Consumer Brand Engagement > Affection	3,906	0,426	0,181
Brand Coolness > Popular	3,679	0,651	0,424
Brand Coolness > High Status	3,675	0,788	0,621
Body	3,628	0,861	0,741
Events	3,605	0,803	0,644
Brand Coolness > Subcultural	3,602	0,831	0,691
Time	3,583	0,754	0,569
Others	3,581	0,763	0,582
Consumer Brand Engagement > Activation	3,581	0,712	0,506
Organizations	3,554	0,785	0,616
Brand Coolness > Autonomy	3,540	0,704	0,495
Process	3,531	0,791	0,625
Entities	3,509	0,766	0,587
Color	3,497	0,716	0,512
Products and Services	3,488	0,780	0,608
Vocation & Title	3,457	0,758	0,575
Animal	3,451	0,762	0,580
Company	3,445	0,693	0,481
Brand Coolness > Iconic	3,443	0,673	0,453
Ingredients	3,428	0,785	0,616
Groups	3,404	0,749	0,561
Nature	3,373	0,693	0,480
Beauty Products and Services	3,371	0,698	0,487
Places	3,366	0,696	0,485
Person	3,348	0,584	0,341
Unit	3,270	0,732	0,536
Brand Coolness > Rebellious	2,924	0,817	0,667
Disease	2,718	0,840	0,706
Total	3,572	0,718	0,516

5 Discussion and Conclusions

The luxury cosmetic industry recently has been suffering under the disruptive forces of challenger brands. Strongly present in social media, these brands have succeeded in creating momentum for themselves and pose as threats to the brands already established in the industry. With the loss of market share to these disruptors, established brands must adapt to new trends in order to maintain or achieve coolness through the eyes of consumers. Challenger brands enter the marketplace by deploying unconventional marketing practices and targeting a niche segment. These practices, more and more focused on social media, can be studied to retrieve important conclusions for brands trying to *keep their cool* in the everchanging circumstances of the market.

While social media has become common research ground because of the relationships that brands establish with their brand communities through there, few researches have been conducted regarding the use of UGC campaigns and its influence on consumers' perceptions. To contribute to literature on the consequences of utilizing UGC campaigns, the brand Drunk Elephant, one of the iconic challenger brands of the beauty industry was examined. The purpose of the investigation was to determine the impact of UGC on brand coolness and consumer brand engagement.

In order to understand the practical implications of deploying a user-generated-content strategy, a netnographic methodology was used to provide insight on electronic word-of-mouth discussed under UGC publications of a social media brand community. Through a textual analysis of the retrieved text from those publications, it's conceivable to see how UGC influences users in how they perceive the brand as cool and how they engage with the brand. Additionally, the researcher can objectively identify the stage in the life cycle of brand coolness that the brand is at by analyzing the characteristics users mention and value the most in the brand. Consequently, this awareness can help adapt the current strategy to achieve the next stage of the cycle or maintain mass cool status.

The textual analysis consisted in conducting a sentiment and a topic sentiment analysis on the data extracted from a free opinion interactive social media platform, Instagram. The data extracted had been published under a hashtag created by the brand to encourage user-generated content publishing. Drunk Elephant (DE), the brand selected, had created the hashtag to use in

posts created by users (UGC) as part of its unique marketing strategy: refusal to resort to other means of advertising other than word-of-mouth generated by its consumers. This selection helped prevent bias in the results from other advertising activities. Considered a challenger within the cosmetic industry for defying the norm by creating the concept of clean beauty, DE displayed a quick rise in popularity, making it one of the fastest growing skincare brands in history, all without engaging in advertising efforts other than word-of-mouth. Results from the textual analysis revealed trending topics and sentiments conveyed by users in the comments.

Overall, the global sentiment analysis revealed user sentiment to be mainly positive towards the user-generated content during the research period, followed by a less significant amount of neutral sentiment. Negative comments were rather few which shows that consumers have a general positive reception to content published by other users. Along these lines, the global sentiment analysis also showed that users were mostly non-ironic, subjective and agreeing in the comments. Visibly, there is a positive response to UGC by consumers in a first analysis. Furthermore, a topic sentiment analysis provided further insight on the trending topics being discussed as well as the sentiment users displayed towards those topics. Finally, the impact of UGC on consumers' perceptions of brand coolness and consumer brand engagement was examined through the same topic sentiment analysis, but in this case focused on evaluating the sentiments and frequency of the topics associated with the dimensions of the two constructs.

5.1 Theoretical contributions

The purpose of this dissertation was to understand the impact of user-generated content on consumers' perceptions of brand coolness and brand engagement, by means of textual analysis of the electronic word-of-mouth shared on the user-generated posts published under the hashtag created by the brand. As so, the literature review necessary to conduct an experience surrounding these constructs focused on an examination of the cosmetic industry, including its recent trends and market segmentations; word-of-mouth within an online context (eWOM) including user-generated content; brand coolness and consumer brand engagement. Despite having already been published previous research under the luxury fashion industry context (Loureiro et al., 2020), the similar booming market of cosmetic industry has suffered far less

academic attention (Doyle, 2020; Forbes Technology Council, 2020). Hence, this dissertation hopes to bring academics' attention to this overlooked yet thriving market.

Having been established that consumers response to UGC is mostly positive, it's possible to infer that brands can encourage the creation of UGC as this will create positive word-of-mouth among their brand communities. As for the most trending topics found in these user interactions, people's names, handles, nicknames and their contacts were by far the most mentioned in the comments. Thus, leading to the conclusion that UGC generates significant sharing of the content with other users and leading to the expansion of the brand's community without any actual interference from the brand. The most trending topics identified next in the user comments were Desirability and Affection, the former being a dimension of brand coolness and the latter a dimension of consumer brand engagement. As a result, we can infer that users frequently display desire and/or affection towards the brand, its products or the story of the user's brand experience shared in the UGC. On the whole, it's safe to assume that user-generated content has a positive influence in consumers perceptions and leads to an expansion of the brand's community. With this in mind, there is a further need to verify if this positive influence is sufficient when users express their sentiment towards brand coolness and consumer brand engagement, which are relevant constructs to be studied with regard to UGC due to their dimensions' high frequency in the comments. To draw inference from this, the following research questions were proposed:

1. Does a user-generated content campaign influence consumers' perceptions of brand coolness?
2. Can a brand's coolness status be identified through the online brand community's electronic word-of-mouth?
3. Does a user-generated content campaign influence consumer brand engagement?

Regarding the first research question proposed "Does a user-generated content campaign influence consumers' perceptions of brand coolness?", few studies had been conducted on the subject. The recent conceptualization of brand coolness and the relevance of this topic for brands trying to achieve a cool status, grants it as a field where far more investigation is yet to be held. Although an influential relationship was found to occur between brand coolness and word-of-mouth (C. Warren et al., 2019), there had yet to be proven a potential impact of user-generated content on brand coolness. In addition, the latter had not yet been examined within

an online context or had the allusion of the consumers' perceptions of brand coolness being possibly perceived on eWOM been made. The influential interactions between users on social media brand communities (eWOM) had already been dissected for their impact on purchase decisions ((Cheung et al., 2008; Kozinets, 1999), brand image (Krishnamurthy & Kumar, 2018), product sales (Cheung & Thadani, 2012; Nisar et al., 2020), brand performance, user engagement (Nisar et al., 2020) and so forth. Hence, making it worth verifying the capability of remarks nurturing or damaging the coolness of a brand within this context.

The topic sentiment analysis confirmed that some of the characteristics of brand coolness were frequently mentioned in the comments, which is aligned with previous statements of brand coolness being subjective (C. Warren et al., 2019; C. Warren & Campbell, 2014) and implicates that consumers don't attribute the same characteristics of cool to every brand. As for the brand being studied, the most frequent characteristics of coolness identified in the comments were desirability, popularity and autonomy. With a high sentiment polarity attached to brand coolness, it can be concluded that UGC leads to a high level of attraction felt by users towards the brand. In the same way, references to popularity were somewhat mentioned in the comments with a positive sentiment attached to it making it clear that the brand community considers the brand popular. Another slightly mentioned characteristic of brand coolness was autonomy, implying that users perceive the brand as original and authentic. If UGC is capable of influencing consumers to create word-of-mouth about the cool characteristics of the brand, then it can be inferred that UGC influences their perceptions on these attributes of the brand. Through the observation of the valence and frequency of the dimensions of brand coolness on the comments retrieved it was possible to conclude that user-generated content has an impact on brand coolness. Thus, further escalating the validation of (C. Warren et al., 2019) with regard to the influence of brand coolness on WOM.

These characteristics of brand coolness retrieved from the text lead to the second research question: "Can a brand's coolness status be identified through the online brand community's electronic word-of-mouth?". Consumers attribute distinctive characteristics to brands in different stages of coolness due to the subjectivity of the construct (C. Warren et al., 2019). Despite previous scholars have already identified which characteristics are usually conveyed by a niche, an uncool and a mass cool brand, there hasn't been an examination of electronic word-of-mouth with the purpose of identifying a brand's coolness stage in the life cycle at a

certain time. The topic sentiment analysis identified the key characteristics of brand coolness that had been more mentioned in the eWOM of the brand community. By comparing these characteristics to the ones attributed to each stage of coolness in previous studies, it was possible to reach a conclusion on the brand's cool status. According to these results, users considered the brand to be desirable, popular and autonomous, which is consistent with the characteristics perceived on a mass cool brand (C. Warren et al., 2019). Taking into account the recent acquisition of the brand by one of the beauty industry leaders due to its fast growth in popularity, the mass cool status found in the comments is consistent with the reality in the market. Hence, it's possible to infer the coolness status of a brand through its brand community's eWOM.

As for the final research question "Does a user-generated content campaign influence consumer brand engagement?", the topic sentiment analysis also sheds some light on the matter. The consumer brand engagement practicality in the comments was analyzed through the multidimensional conceptualization of the construct which focuses on cognitive processing, affection and activation. Most authors (Bilro & Loureiro, 2020; Brodie et al., 2013; Hollebeek et al., 2014) support this theory versus a unidimensional one. Seemingly, the results show a higher frequency of the affective dimension of consumer brand engagement, which can be translated as a high display of affection towards the brand in the comments of the UGC posts.

The remaining dimensions of CBE are also somewhat mentioned with a strongly positive sentiment polarity throughout the text retrieved, thus inducing that consumers transmit a high regard when mentioning their thoughts and considerations about the brand (cognitive processing) and a high level of time and effort depleted in a consumer/brand interaction (activation). Consequently, from these results can be inferred that user-generated content generates a positive display in eWOM of consumer and brand interactions, in other words, UGC is capable of influencing consumer brand engagement. This falls in line with previous research on engagement within an online context: online environments could influence the effectiveness of advertising techniques (Calder et al., 2009), social media's function as a facilitator of user interaction led to an increase in consumer brand engagement (Hollebeek et al., 2014), and eWOM's valence and information diversity could generate an impact on user engagement (Nisar et al., 2020). In addition, to answer one of the questions proposed in the field of consumer engagement (Bilro & Loureiro, 2020), the empirical results gathered here

show that firm-initiated content on social networks can drive user-generated content. The brand under examination drove UGC by creating a hashtag for that purpose alone on its social networks and continuously encouraging users to create posts, under such hashtag, where they could discuss their journey with the brand.

In a nutshell, this dissertation contributes to literature in this field by demonstrating the positive impact of user-generated content on a social media brand community to understand consumer's perceptions of brand coolness and consumer brand engagement, reflected in eWOM.

5.2 Managerial Implications

For brands trying to drive consumer engagement and convey coolness through electronic word-of-mouth, as they are important factors capable of driving firm success (Hollebeek et al., 2014; Kaur et al., 2019; Nisar et al., 2020; C. Warren et al., 2019), these results provide a field of experimentation for brands to foster positive perceptions in consumers. Furthermore, these results also reveal clear practical implications for marketing managers working in the luxury cosmetic industry as this was the setting explored. Managers can apply the practices described to their communication channels in order to drive consumer engagement and strengthen the relationship between the consumer and the brand. Below, can be seen the managerial implications derived throughout this research.

Firstly, UGC campaigns can be held in order to increase consumer engagement. Social media brand communities can be used as setting for UGC campaigns encouraging users to talk about their experiences with the brand, in order to stimulate sharing and therefore exposure to the brand. UGC can have a positive impact in consumer's brand engagement leading them to share their positive sentiment in the comments under the publications. The higher the engagement with the brand, the higher will be the exposure to new users, thus expanding and reinforcing the ties between the brand's community on those platforms. Ultimately, the UGC can lead to a trending movement within the social media channel and grant more visibility towards the brand. Overall, managers participating in these practices can induce brand awareness and consideration without any need for financial investments.

Secondly, UGC campaigns can increase consumer's perceptions of brand coolness. By watching consumers' experiences with the brand and subsequent interactions in the posts, other users can get a more positive outlook on the brand through the characteristics attributed to it in those online reviews. These characteristics can be perceived as cool by consumers, consequently growing consumers' perceptions of a cool brand. Due to the global reach of social media channels, mass cool status can be reached through the sharing of the positive perceptions towards the brand and its characteristics and the expansion of the brand community.

Thirdly, understand how cool consumers think the brand is through social media word-of-mouth and reassess current strategy accordingly. Brands can determine how consumers perceive them as cool through social listening platforms or text mining tools, which are capable of identifying the most trending topics being referenced to them on social media. After gathering these trends in their search, they can determine in which stage of the life cycle of coolness they currently are positioned in, and establish a strategy to be considered cool to a niche segment, in case of uncoolness, broaden the target segment, in case of niche coolness, and try to maintain the characteristics that made the brand cool in the first place by staying true to its roots, in case of mass coolness. These tools can be used to understand consumers perceptions towards the brand and managers can adapt their strategy accordingly.

In a nutshell, social media networks pose as prosper environments to invest in UGC campaigns capable of generating and spreading word-of-mouth for a brand without substantial financial effort. UGC can be highly beneficial for firms and its consumers as it can provide more information to users about other consumers' experiences and influence their purchase decision, increase sharing and awareness of the brand, and have a positive impact on consumer's perceptions of the brand as cool on a global basis.

5.3 Limitations and future research

Despite the significant conclusions attained through this dissertation, there are far many more that remain unanswered. Since this was the first investigation that focused on the construct brand coolness through electronic word of mouth, this should still be considered a focal point for future research with regard to the constructs itself and their relationship, other contexts, and other possible related variables.

While the text mining technique applied can be used in determining consumer sentiments as well as trending topics in consumer discussions, it gives no insight to the relationship between the constructs. Hence, future research should try to uncover the correlation between these constructs: brand coolness, consumer brand engagement and user-generated content. Additionally, the relationship between the characteristics of brand coolness and other constructs should be evaluated as these may have variable effects in other possible antecedent and consequences of coolness such as willingness to pay, brand awareness, brand performance and many others.

Furthermore, the choice of a brand in the luxury cosmetic industry limited the results to these settings. Since the chosen methodology can be replicated in other platforms with text from consumers at disposal (such as blogs, online reviews platforms, and so forth), other researchers can lead investigations concerning these constructs in other contexts, as for example the hospitality, the automotive, the fashion industry and suchlike. Similarly, the research focused on data extracted from a single social network, Instagram. Despite this being the channel that originated the UGC movement in this brand's case and hence the most worth examining in this scenario, this might not be the case for other brands in the same or different industries. It would be interesting to see further investigation conducted on different platforms.

Finally, more research should be conducted within the topics explored in this dissertation as for example with regard to the content subject to analysis. In this dissertation, no distinction was made between the posts published by the brand (reposts of UGC) or by the consumers under the UGC hashtag campaign. This may be a topic worth pursuing to distinguish which type of UGC, consumer originated or firm republication of consumer content, is more effective in influencing consumers' perceptions. Furthermore, this research did not take into account the impact of negative user content on consumers' perceptions of brand coolness or user engagement. Further research must be conducted to assert whether there are potential dangers for a firm's cool status and user engagement from user-generated content campaigns.

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7 Annexes

Annex A – Dictionary Topics extracted from Data.

Construct	Dimensions	Subtopic		
Brand	Autonomy	Top>BrandCoolness>Autonomy>Authentic>DoesntSeemArtificial		
		Top>BrandCoolness>Autonomy>Authentic>DoesntTryToBeSomethingItSNot		
Coolness	Autonomy	Top>BrandCoolness>Autonomy>Authentic>IsAuthentic		
		Top>BrandCoolness>Autonomy>Authentic>IsTrueToItsRoots		
		Top>BrandCoolness>Autonomy>Original>DoesItsOwnThing		
		Top>BrandCoolness>Autonomy>Original>IsInnovative		
		Top>BrandCoolness>Autonomy>Original>IsOriginal		
		Desirability	Autonomy	Top>BrandCoolness>Desirability>AestheticallyPleasing>HasAREallyNiceAppearance
				Top>BrandCoolness>Desirability>AestheticallyPleasing>IsAestheticallyAppealing
Top>BrandCoolness>Desirability>AestheticallyPleasing>IsAttractive				
Top>BrandCoolness>Desirability>AestheticallyPleasing>LooksGood				
Top>BrandCoolness>Desirability>Energetic>IsEnergetic				
Top>BrandCoolness>Desirability>Energetic>IsLively				
Top>BrandCoolness>Desirability>Energetic>IsOutgoing				
Top>BrandCoolness>Desirability>Energetic>IsVigorous				
Top>BrandCoolness>Desirability>Useful/Extraordinary>HelpsPeople/IsSuperb				
Top>BrandCoolness>Desirability>Useful/Extraordinary>IsExtraordinary				
Top>BrandCoolness>Desirability>Useful/Extraordinary>IsUseful/IsExceptional				
Top>BrandCoolness>Desirability>Useful/Extraordinary>IsValuable/IsFantastic				
High Status	Autonomy			Top>BrandCoolness>HighStatus>IsChic
		Top>BrandCoolness>HighStatus>IsGlamorous		
		Top>BrandCoolness>HighStatus>IsRitzy		
		Top>BrandCoolness>HighStatus>IsSophisticated		
Iconic	Autonomy	Top>BrandCoolness>Iconic>IsACulturalSymbol		
		Top>BrandCoolness>Iconic>IsIconic		
Popular	Autonomy	Top>BrandCoolness>Popular>IsInStyle		
		Top>BrandCoolness>Popular>IsLikedByMostPeople		
		Top>BrandCoolness>Popular>IsPopular		
		Top>BrandCoolness>Popular>IsWidelyAccepted		
Rebellious	Autonomy	Top>BrandCoolness>Rebellious>IsDefiant		
		Top>BrandCoolness>Rebellious>IsRebellious		

	Subcultural	Top>BrandCoolness>Subcultural>HelpsPeopleWhoUseItStandApartFromTheCrowd
		Top>BrandCoolness>Subcultural>MakesPeopleWhoUseItDifferentThanOtherPeople
		Top>BrandCoolness>Subcultural>PeopleWhoUseThisBrandAreUnique
Consumer Brand Engagement	Activation	Top>Engagement>Activation>BrandIsOneOfTheBrandsIUsuallyUseWhenIUseCategory
		Top>Engagement>Activation>SpendALotOfTimeUsingBrandComparedToOthers
		Top>Engagement>Activation>WheneverIUseCategoryIUsuallyUseBrand
	Affection	Top>Engagement>Affection>FeelPositiveWhenIUseBrand
		Top>Engagement>Affection>IFeelGoodWhenIUseBrand
		Top>Engagement>Affection>ImProudToUseBrand
		Top>Engagement>Affection>UsingBrandMakesMeHappy
	Cognitive Processing	Top>Engagement>CognitiveProcessing>IThinkAboutBrandALotWhenImUsingIt
		Top>Engagement>CognitiveProcessing>UseBrandGetsMeToThinkAboutBrand
		Top>Engagement>CognitiveProcessing>UsingBrandStimulatesInterestToLearnAboutBrand

Annex B – NLP topics extracted from data.

Main Topic	Subtopics
Top	Top
Event	Top>Event
	Top>Event>NaturalDisaster
	Top>Event>NaturalPhenomena
	Top>Event>Occasion
	Top>Event>Occasion>Conference
	Top>Event>Occasion>Games
	Top>Event>War
ID	Top>Id
	Top>Id>Email
	Top>Id>Hashtag
	Top>Id>IdNumber
	Top>Id>Nickname
	Top>Id>PhoneNumber

	Top>Id>PostalCode
	Top>Id>Url
Living Thing	Top>LivingThing
	Top>LivingThing>Animal
	Top>LivingThing>Animal>Invertebrate
	Top>LivingThing>Animal>Invertebrate>Insect
	Top>LivingThing>Animal>Vertebrate>Bird
	Top>LivingThing>Animal>Vertebrate>Fish
	Top>LivingThing>Animal>Vertebrate>Mammal
	Top>LivingThing>Animal>Vertebrate>Reptile
	Top>LivingThing>BodyPart
	Top>LivingThing>Flora
	Top>LivingThing>Flora>FloraPart
Location	Top>Location
	Top>Location>Address
	Top>Location>AstralBody
	Top>Location>AstralBody>Planet
	Top>Location>AstralBody>Star
	Top>Location>Facility
	Top>Location>Facility>AmusementPark
	Top>Location>Facility>ArcheologicalPlace
	Top>Location>Facility>Line
	Top>Location>Facility>Line>Railroad
	Top>Location>Facility>Line>Tunnel
	Top>Location>Facility>Market
	Top>Location>Facility>Monument
	Top>Location>Facility>Park
	Top>Location>Facility>SportsFacility
	Top>Location>Facility>StationTop>Airport
	Top>Location>Facility>StationTop>Station
	Top>Location>Facility>Theatre
	Top>Location>Facility>WorshipPlace
	Top>Location>GeographicalEntity
	Top>Location>GeographicalEntity>LandForm
	Top>Location>GeographicalEntity>LandForm>Basin
	Top>Location>GeographicalEntity>LandForm>Beach

Location	Top>Location>GeographicalEntity>LandForm>Cape
	Top>Location>GeographicalEntity>LandForm>Desert
	Top>Location>GeographicalEntity>LandForm>Forest
	Top>Location>GeographicalEntity>LandForm>Isle
	Top>Location>GeographicalEntity>LandForm>Mountain
	Top>Location>GeographicalEntity>LandForm>Valley
	Top>Location>GeographicalEntity>LandForm>Volcano
	Top>Location>GeographicalEntity>NaturalReserve
	Top>Location>GeographicalEntity>WaterForm
	Top>Location>GeographicalEntity>WaterForm>Channel
	Top>Location>GeographicalEntity>WaterForm>Lake
	Top>Location>GeographicalEntity>WaterForm>Ocean
	Top>Location>GeographicalEntity>WaterForm>River
	Top>Location>GeographicalEntity>WaterForm>Sea
	Top>Location>GeoPoliticalEntity
	Top>Location>GeoPoliticalEntity>Adm1
	Top>Location>GeoPoliticalEntity>Adm2
	Top>Location>GeoPoliticalEntity>Adm3
	Top>Location>GeoPoliticalEntity>City
	Top>Location>GeoPoliticalEntity>Continent
	Top>Location>GeoPoliticalEntity>Country
Top>Location>GeoPoliticalEntity>District	
Organization	Top>Organization
	Top>Organization>ArtisticOrganization
	Top>Organization>ArtisticOrganization>Museum
	Top>Organization>ArtisticOrganization>MusicGroup
	Top>Organization>Company
	Top>Organization>Company>ConsumerGoodsCompany>Discretionary>AutomobileCompany
	Top>Organization>Company>ConsumerGoodsCompany>Discretionary>ConsumerDurableCompany
	Top>Organization>Company>ConsumerGoodsCompany>Discretionary>ConsumerServicesCompany
	Top>Organization>Company>ConsumerGoodsCompany>Discretionary>ConsumerServicesCompany>Entertainment

Organization	Top>Organization>Company>ConsumerGoodsCompany>Discretionary>ConsumerServicesCompany>Hotels
	Top>Organization>Company>ConsumerGoodsCompany>Discretionary>ConsumerServicesCompany>MediaCompany
	Top>Organization>Company>ConsumerGoodsCompany>Discretionary>ConsumerServicesCompany>Restaurants
	Top>Organization>Company>ConsumerGoodsCompany>Discretionary>RetailingCompany
	Top>Organization>Company>ConsumerGoodsCompany>Staples
	Top>Organization>Company>ConsumerGoodsCompany>Staples>PersonalProductsCompany
	Top>Organization>Company>FinancialCompany
	Top>Organization>Company>FinancialCompany>BankingCompany
	Top>Organization>Company>FinancialCompany>BankingCompany>BankingServices
	Top>Organization>Company>FinancialCompany>BankingCompany>BankingServices>Bank
	Top>Organization>Company>FinancialCompany>Insurance
	Top>Organization>Company>FinancialCompany>RealEstate
	Top>Organization>Company>HealthcareCompany>HealthcareServicesCompany
	Top>Organization>Company>HealthcareCompany>HealthcareServicesCompany>Hospitals
	Top>Organization>Company>HealthcareCompany>PharmaCompany>BiotechCompany
	Top>Organization>Company>HealthcareCompany>PharmaCompany>Pharmaceutical
	Top>Organization>Company>IndustrialCompany
	Top>Organization>Company>IndustrialCompany>IndustrialGoods
	Top>Organization>Company>IndustrialCompany>IndustrialGoods>EquipmentCompany
	Top>Organization>Company>IndustrialCompany>IndustrialServicesCompany>Construction Services
	Top>Organization>Company>MaterialsCompany>MineralResources
	Top>Organization>Company>TechnologyCompany
	Top>Organization>Company>TechnologyCompany>SoftwareCompany
	Top>Organization>Company>TelcoServicesCompany
	Top>Organization>EducationalOrganization
	Top>Organization>EducationalOrganization>School
	Top>Organization>EducationalOrganization>University
	Top>Organization>Government
	Top>Organization>Institute
	Top>Organization>Institute>LaborUnion
	Top>Organization>Institute>ProfessionalAssociation
	Top>Organization>InternationalOrganization

Organization	Top>Organization>Military
	Top>Organization>Military>Army
	Top>Organization>PoliticalParty
	Top>Organization>PublicInstitution
	Top>Organization>SportsOrganization
	Top>Organization>SportsOrganization>SportsTeam
Other Entity	Top>OtherEntity
	Top>OtherEntity>Award
	Top>OtherEntity>Class
	Top>OtherEntity>Color
	Top>OtherEntity>Disease
	Top>OtherEntity>Doctrine
	Top>OtherEntity>Doctrine>Academic
	Top>OtherEntity>Doctrine>PersonTendency
	Top>OtherEntity>Doctrine>Plan
	Top>OtherEntity>Doctrine>Sports
	Top>OtherEntity>Doctrine>Theory
	Top>OtherEntity>EthnicGroup
	Top>OtherEntity>God
	Top>OtherEntity>Language
	Top>OtherEntity>MethodSystem
	Top>OtherEntity>Offence
	Top>OtherEntity>Rule
	Top>OtherEntity>Rule>Contract
	Top>OtherEntity>Rule>LawRule
	Top>OtherEntity>Rule>Treaty
Top>OtherEntity>Title	
Top>OtherEntity>Vocation	
Person	Top>Person
	Top>Person>FirstName
	Top>Person>FullName
	Top>Person>LastName
Process	Top>Process
	Top>Process>IntentionalProcess
	Top>Process>IntentionalProcess>IntentionalPsychologicalProcess
	Top>Process>InternalChange>Damaging

Process	Top>Process>Motion
	Top>Process>Motion>Translocation>Transportation
Product	Top>Product
	Top>Product>Cosmetic
	Top>Product>CulturalProduct
	Top>Product>CulturalProduct>Broadcast
	Top>Product>CulturalProduct>Composition
	Top>Product>CulturalProduct>Game
	Top>Product>CulturalProduct>Movie
	Top>Product>CulturalProduct>MusicalProduct
	Top>Product>CulturalProduct>Picture
	Top>Product>CulturalProduct>Printing
	Top>Product>CulturalProduct>Printing>Book
	Top>Product>CulturalProduct>Printing>Document
	Top>Product>CulturalProduct>Printing>Magazine
	Top>Product>CulturalProduct>Printing>Newspaper
	Top>Product>CulturalProduct>Show
	Top>Product>Food
	Top>Product>Food>Beverage
	Top>Product>Food>CookedPlate
	Top>Product>Food>DairyProduct
	Top>Product>Food>Fishfood
	Top>Product>Food>FruitOrVegetable
	Top>Product>Food>Legume
	Top>Product>Food>Meat
	Top>Product>Food>OilOrGrease
	Top>Product>Machine
	Top>Product>Machine>ElectricalAppliance
	Top>Product>Machine>ElectronicAppliance>Computer
	Top>Product>Machine>ElectronicAppliance>ElectronicDevice
	Top>Product>Machine>ElectronicAppliance>MobilePhone
	Top>Product>Machine>Instrument
	Top>Product>Machine>PrecisionInstrument
	Top>Product>Machine>Vehicle
	Top>Product>Machine>Vehicle>Aircraft
Top>Product>Machine>Vehicle>Car	

Product	Top>Product>Machine>Vehicle>Ship
	Top>Product>Machine>Vehicle>Train
	Top>Product>Machine>Weapon
	Top>Product>Part
	Top>Product>ProfessionalService
	Top>Product>ProfessionalService>FinancialService
	Top>Product>ProfessionalService>TelecommunicationsService
	Top>Product>Substance
	Top>Product>Substance>ChemicalCompound
	Top>Product>Substance>ChemicalElement
	Top>Product>Substance>Drug
	Top>Product>Substance>Fuel
	Top>Product>Substance>Mineral
	Top>Product>Textile>Accessory
	Top>Product>Textile>Clothes
	Top>Product>Textile>Fabric
	Top>Product>Textile>Footwear
	Top>Product>Utensil
	Top>Product>Utensil>Container
	Top>Product>Utensil>UtensilOther
Timex	Top>Timex
	Top>Timex>Date
	Top>Timex>Period
Unit	Top>Unit
	Top>Unit>Currency
	Top>Unit>IntensityUnit
	Top>Unit>PhysicalExtentUnit
	Top>Unit>SpaceUnit
	Top>Unit>SpeedUnit
	Top>Unit>TemperatureUnit
	Top>Unit>TimeUnit>Day
	Top>Unit>TimeUnit>Era
	Top>Unit>VolumeUnit
	Top>Unit>WeightUnit