Fight Against Corona: Exploring Consumer-Brand Relationship via Twitter Textual Analysis

Francesco Smaldone[1(✉)], Mario D'Arco[1], and Vittoria Marino[2]

[1] Department of Business Science - Management and Innovation Systems, University of Salerno, Fisciano, Italy
fsmaldone@unisa.it

[2] Department of Law, Economics, Management and Quantitative Methods (DEMM), University of Sannio, Benevento, Italy

Abstract. This study investigates how social media (SM) can affect the consumer-brand relationship phenomena. Basing on the literature concerning the so-called "dark side" of social media (e.g., fake news and memes), the authors analyze the case of Corona beer. Web-users attacked this Mexican brand due to the link between its brand name and the Coronavirus. The case was analyzed via Twitter textual analysis. Results offer insights for both scholars and practitioners.

Keywords: COVID-19 pandemic · Corona extra · Instant marketing · Sentiment analysis · Twitter analysis · Text mining

1 Introduction

In current times, the COVID-19 pandemic represents a critical challenge for the financial markets and organizations and final customers. The different lockdown restrictions adopted by governments worldwide to reduce the spread of the virus have strongly modified consumption patterns and firms' revenues. Specifically, people started to use online interfaces for working, conducting business, studying, and engaging in a widening range of recreational activities on SM.

According to the extant literature, SM has both a 'bright side' and a 'dark side' (Kietzmann et al. 2011; Baccarella et al. 2018; Smaldone et al. 2020). It means that SM brings both advantages and disadvantages to individuals and firms. Specifically, as highlighted by Baccarella et al. (2018), the bright side of SM is represented by the fact that firms can use online channels to engage with consumers, sell their products/services, and create customer services initiatives as well as numerous communication and marketing strategies. At the same time, SM should cause several incidents and troubles, such as hate speech (Mondal et al. 2017; Pohjonen 2019), cyberbullying (Del Vigna et al. 2017), and brand attack episodes (Rauschnabel et al. 2016).

During the pandemic outbreak, SM revealed both a 'bright side' and a 'dark side'. 'Focusing on the dark side', online users contributed to the development of fake news

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(Merchant and Asch 2018), disinformation campaigns (Sfichi and Lavric 2020), and online hate speech towards the Chinese and Asian population (Schild et al. 2020). Another surprising phenomenon concerns the number of ironical and parodic social media contents linking due to the name similarity of the beer 'Corona', a Mexican corporation owned by Constellation Brands (STZ), and the Coronavirus. Because of such negative buzz around Corona, the intention to buy this famous beer brand in the United States among adults has fallen to its lowest level in the past two years, while the brand's perception has also collapsed (Corbet et al. 2020).

The results of a phone survey conducted in February 2020 by the public-relations agency 5WPR revealed that 38% of 737 American beer drinkers "would not buy Corona under any circumstances". A total of 16% said they were "confused about whether Corona beer is related to the coronavirus". However, the picture depicted by Maggie Bowman, senior director of communications for the beer division of Constellation Brands, is different. Specifically, she said: "Despite the misinformation circulating, consumer sentiment and sales remain strong. Consumers understand there is no linkage between the virus and our business" (Bradley 2020).

Against this backdrop, the paper presents a Twitter analysis to explore people's sentiment towards Corona Extra. To reach this objective, we first illustrate a brief theoretical background about the role of fake news, internet memes, and consumer-brand relationship. Thereafter, methods and research design are outlined as well as discussion, implications, and concluding remarks.

2 Marketing Problem-Solving Modes

The COVID-19 has infected millions of people, but also the mass media and the Internet. Particularly, fake news, namely, deliberate disinformation or hoaxes spread via traditional and new media, can harm the population more than the virus (Sfichi and Lavric 2020). The World Health Organization is trying to fight the Coronavirus and the trolls and conspiracy theorists. According to Shu et al. (2017), online fake news is intrusive and diverse in topics, styles, and platforms. Generally, fake news is published and distributed on the Internet, to purposely mislead, befool or lure readers for financial, political, or other gains" (Shu et al. 2017, p. 4). Sometimes fake news is targeted at brands. Such information can affect the consumer decision-making process and cause damages to a brand's reputation and consumers (Chen and Cheng 2019).

In concomitance with dramatic events such as the COVID-19 outbreak, fake news can result from psychological suffering such as anxiety and fear. Specifically, as highlighted by Presti et al. (2020), things that have consonance with COVID-19 might acquire functions of 'bad', 'diseased', or 'dangerous', such as the case of the Corona Extra. Together with fake news, another phenomenon that characterizes the Internet is the proliferation of viral challenge memes. This form of participatory digital culture exploded during the summer of 2014 with the Ice-Bucket Challenge videos of people tipping water over themselves (Burgess et al. 2018).

The word "meme" was neologized by the biologist Richard Dawkins in *The Selfish Gene* (1976). According to Dawkins, a meme is a cultural unit transmitted from person to person via imitation (Pauliks 2020). From a semiotic perspective, viral challenge

meme is an example of multimodal texts, that is, units of signification resulting from the combination of different semiotic resources, such as videos, sounds, and written texts (Baldry and Thibault 2006).

The mass media have accused viral challenge memes of being both narcissistic and mindlessly conformist (Burgess et al. 2018). Researchers (Benaim 2018) also underline the high symbolic value of internet memes. As in the case of the Ice Bucket Challenge, memes are used for charity. Therefore, such symbols represent a critical resource for marketing, advertising, and branding (Holt and Cameron 2010). Specifically, some brands and companies can benefit from internet users who create and disseminate (without payment) memes (Benaim 2018). Similarly, online communities can use memes to denigrate companies or boycott their products (Fournier and Avery 2011).

Based on these theoretical considerations, the present research investigates the case of Corona Extra. This brand was at the center of a false narrative because of the homonymy involving the Coronavirus and its brand name. During the initial phase of the pandemic outbreak, Corona Extra became the target of several hilarious memes. The most emblematic example is the Corona beer challenge with a sword published by Mr Uekusa and emulated by other internet users.

This study aims at investigating the impact that a diseases name can have on a product or brand. Specifically, the attention is focused on the following research question: how can consumer-generated contents, such as memes, help or hurt a brand and thus strengthen or diminish consumers-brand relationship and brand image?

3 Methods and Research Design

This study adopts an explorative approach to detect customers' perceptions via Twitter textual analysis in the Anglosphere. Data Mining has been applied to the extracted *tweets* employing Text Mining (TM) techniques. Geocoded scraping via R software (https://r-project.org/) was performed to derive the prominent tweets in the target market. Nevertheless, "corona beer virus" was selected as a keyword about Corona Extra and the semantic linkage to Coronavirus.

Data mining was performed via *the twitter R* package, developed by Gentry (2015). Tweets' text was analyzed via *tm* package, developed by Feinerer et al. (2018). Tweets were recollected from the official website (https://twitter.com), stored, and analyzed via Text Analysis, Sentiment Analysis (SA), and Topic Modelling. After the data were stored and cleaned, TM was performed via R software to examine the retrieved tweets to proceed with the data visualization. The collection of 222,549 tweets is an exhaustive amount of data to explore phenomena linked to Corona Extra and Coronavirus via TM techniques.

Co-occurrences-based terminological combinations were obtained via the *stylo* package. Topic Modeling was conducted via the *topic models* R package. Topic Modeling was employed to derive the main thematic areas linked to the case study computing the probability of each word to be included in a topic. The last step of the methodology is SA; that is, the automatic (or semi-automatic) analysis of texts, pictures, or videos to extract and categorize the content's opinions. SA helps predict social, political, and economic events and understand public opinion on a specific theme of discussion, profile

opinions on products and brands, and collect customers' emotions. SA is used to analyze the writer's state of mind on a specific subject and classify it as positive, negative, or neutral (Feldman 2013). In this research, it was employed a supervised SA algorithm. The algorithm employs the NRC lexicon to explore customers' emotions in Twitter data.

4 Results

After the methodological introduction, the results of the BDA are reported in this section. Bigrams, weighted word clouds, and sentiment outputs were computed via R software to perform text mining. Sentiment analysis with NRC lexicon is shown in Fig. 1. Throughout, a comparative weighted word cloud with topic modeling is depicted in Fig. 2. Focusing on the bigrams analysis, the ten terms with the highest occurrences are "corona beer" (81126), "beer challenge" (30654), "sword challenge" (17121), "sword corona" (13671), "beer friend" (10677), "right home" (10669), "everything right" (19664), "friends' home" (10657), "hour outside" (10652), and "outside pub" (10648).

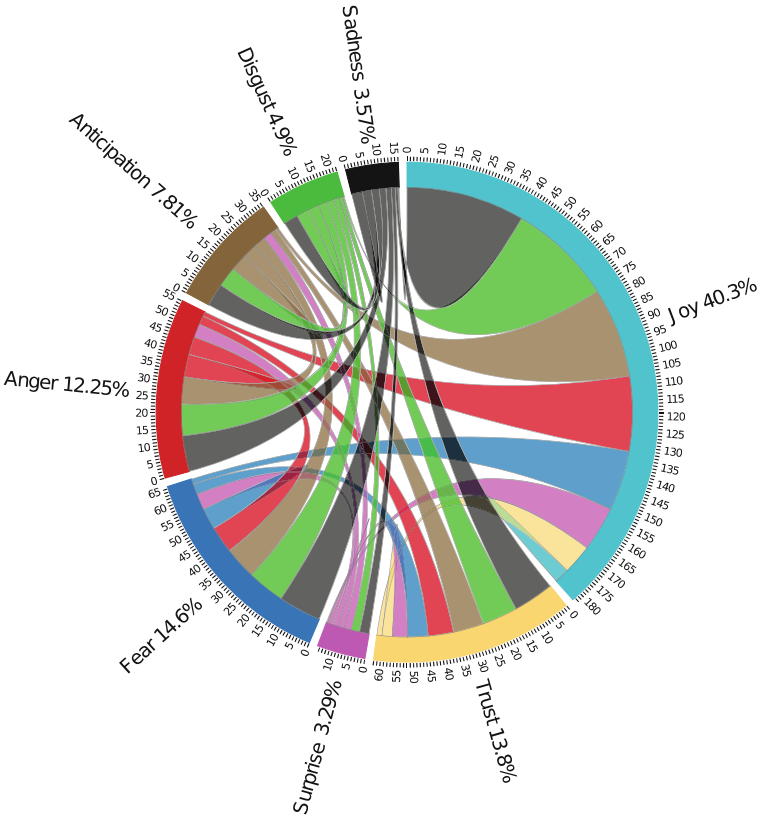

Fig. 1. Chord diagram representing emotions' scores distribution obtained via NRC lexicon-based sentiment analysis.

Figure 1 shows the emotions derived from the extracted tweets and sentiment scores. Tweets regarding Corona Extra were almost positive (62%). The most common emotion was joy (40.3%), trust (13.8%), and surprise (3.29%), respectively. Among the negative emotions (38%) was found a consistent amount of fear (14.6%), followed by anger (12.25%), anticipation (7.81%), disgust (4.9%), and sadness (3.57%).

The comparative word cloud reported in Fig. 2 shows the set of words weighted on the base of their occurrences. Each color indicates one of the following topics: 1) meme challenge, 2) lifestyle, 3) brand perception, 4) COVID-19 pandemic. The first topic comprises words such as "beer", "challenge", "corona, sword", "coronavirus", "Mexican", "body", "Jenga", "taco", and "tablecloth". The second topic includes words such as "beer", "corona", "virus", "weather", "garden", "everyone", "holidays", "marketing", "drink", and "smart". The third topic related to brand perception contains terms such as "beer", "right", "home", "friend", "outside", "everything", "pub", "hour", "feel", "depth", and "contempt". The fourth topic embraces words such as "corona", "beer", "Mexico", "drinking", "people", "Covid", "shut", "million", "today", and "since".

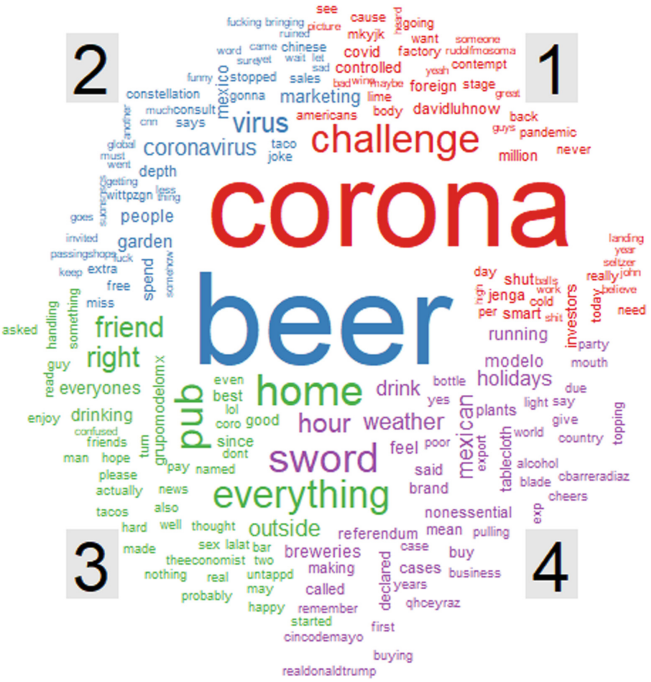

Fig. 2. Comparative weighted word cloud with topic modeling.

5 Discussion

The link between Corona Beer and the Coronavirus is coincidental. However, this association had a negative influence on the consumer-brand relationship. Several individuals

in their minds connected the disease to the beer and thus started to post on Twitter texts which contained negative sentiments, such as fear and disgust.

Focusing on Corona's presence on SM, it is worth to notice that the beer brand did not make any public comments or acknowledgment of the name similarities. The decision to remain silent in the cultural conversation was the right choice. As revealed by the topic modelling analysis, the negative buzz about Corona Beer has trespassed thanks to several viral internet meme challenges realized by Mr Uekusa (e.g., *Corona Sword Challenge* and *Corona Beer Challenge with Jenga*) and imitated by other individuals. The videos proposed by the International Variety performer positively impacted the brand because the internet users started to tweet positive emotions such as joy. Paradoxically, Corona obtained free media coverage and brand promotion via earned media in the worst of times.

The phenomenon of the association between diseases and brand products is not new. For example, in the 1980s, the sales of candy Ayds were negatively affected by the AIDS pandemic. The company attempted to save the product reputation by changing Diet Ayds, but the situation gets worse.

From the practitioners' point of view, this type of situation creates a dilemma due to the unpredictability of the public's response. This case teaches us that sometimes silence seems the most logical approach. Therefore, in this type of scenario, a brand can wait that the coincidence between the brand name and the disease will die down over time. During this time-lapse, brand managers should monitor the target audience's sentiment via Twitter analysis to explore the mood of the online conversation and collect data for better decision-making.

6 Conclusion

This study investigated Twitter users' reaction, considering the linkage between the brand Corona and the Coronavirus. In total, 222,549 tweets have been collected. Among them, around 62% of the tweets contain a positive sentiment. It means that despite several individuals in their minds connected the disease to the beer, a substantial segment of consumers did not detach themselves from the brand Corona.

This study has some limitations; data were collected in the initial stage of the pandemic. Future research should investigate the actual sentiment to understand consumers' feeling towards Corona Extra.

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