

ANALYZING SENTIMENTS ON AVOCADO USING TEXT MINING

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ABSTRACT

Twitter data contains a lot of information that might be relevant to business decision-making. However, most consumers and marketers have little understanding of the potential and application of Twitter data in marketing. This study offers some insights on the public debate on “avocado” using Twitter data and offers key findings on how such insights may be used for food marketing promotions or innovations in avocado retailing.

Keywords: text analytics, Twitter analytics, avocado, co-occurrence analysis

Introduction

Social media provides companies with the following four advantages: sharing their expertise and knowledge, gaining customers' insights, enabling customers to help one another, and engaging prospective customers (Xu et al., 2020). Despite the popularity of using social media for marketing and promotion purposes, many organizations are not able to fully utilize or take advantage of the massive amount of social media data available for decision-making purposes. Marketers validate that point -- even though they are aware of the impact of social media, it is hard to identify a better approach to amplify the impacts of social media content or boost engagement.

This study attempts to pinpoint how different types of social media content may influence users' engagement on social media, especially Twitter. Twitter is one of the most popular social media platforms, hence, chosen to be a source of data for this paper. Among other social media platforms, Twitter is one of the most efficient platforms on which people have less space to write per tweet than other platforms. Another advantage of using Twitter instead of other platforms is that Twitter uses an open-source interface where users with an Application Programming Interface (API) can access a set maximum number of tweets. The Twitter API tool allows for easy interaction with computer programs and web services (Moujahid, 2014).

Two types of Twitter Analytics that are commonly used in analyzing the tweets collected are descriptive and content analytics. Using these two methods, we queried and analyzed about 110,000 Tweets that contain the search query “avocado”. A word co-occurrence analysis shows that avocados are used along with words like “toast”, “cheese”, “sandwich”, etc (see Figure 1 below). The result shows there are two different clusters in the network. The first cluster is primarily about the most popular food choices when it comes to making avocado dishes and the second cluster is primarily about the way the food is prepared. Using the LDA algorithm, Figure 2 offers some additional insights into the categorization of food choices when it comes to preparing

food with avocados. There are nine different categories according to the LDA analysis. Primarily, people talk about different recipe ideas when it comes to cooking food with avocados.

Conclusions

The results from this study may allow avocado marketers to understand new market opportunities and the importance of consumer opinions on avocados. In addition, consumers can utilize this information in making better-informed decisions when buying avocados based on their peers' social media posts on Twitter.

Avocado has become popular in recent years. However, there is scant research on the use of social media data on the popularity of avocados. In this paper, we have examined people's Twitter sentiment on people's chats about avocados. Our unique data source and analysis provide valuable insights to avocado growers, retailers, and business owners on how to augment their operations and services. Our analysis shows some preliminary results that might be useful for these stakeholders to make better business decisions. For future work, we suggest that researchers consider performing a time series analysis using Twitter data on avocados and other food offerings.

Reference available upon request