

## Chapter 5

# Analysis of Public Sentiments About Mega Online Sale Using Tweets on Big Billions Day Sale

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### ABSTRACT

*The opinion of others significantly influences our decision-making process about any product or service. The positive or negative opinions of prospective clients or customers may promote or demote the profit margin of any business activities. Therefore, analyzing the public sentiment is important for many applications such as firms trying to find out the response of their products in the market, predicting political elections, and predicting socioeconomic phenomena such as stock exchange, sale of products, etc. With the emergence of Web 2.0 services, a wide range of online platforms including micro-blogging, social networking, and many other review platforms are available. The automated process for public sentiment analysis from a large amount of social data present on the web helps to improve customer satisfaction. This chapter discusses the process of sentiment analysis of prospective buyers of mega online sales using their posted tweets about the big billions day sale.*

### INTRODUCTION

In today's era, usage of internet is growing rapidly. It transforms from traditional communicating tools such as normal mailing links to microblogging. In this regard interaction through social media becomes a common way for conveying the opinion all across the globe sharing all kinds of information. Social media and microblogging provide a convenient way to people, organizations, government sector and many different firms to have a look at a different variety of data over the internet and also provides a way to share that data worldwide. In the present scenario, various politicians, celebrities, and firms depend wholly on social media to have an interaction with their followers.

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One of the most popular social media is Twitter which is highly interactive and user-friendly. Twitter contains a chunk of data about various opinions based on the user's viewpoint, data about the discussions of the current issue prevailing worldwide and shares an opinion about different products, movies, etc. This large amount of data have a significant usage for marketing analysts which they can use to get an idea of market trend and also gets a basis to calculate the sentiments of people about a specific product or issue.

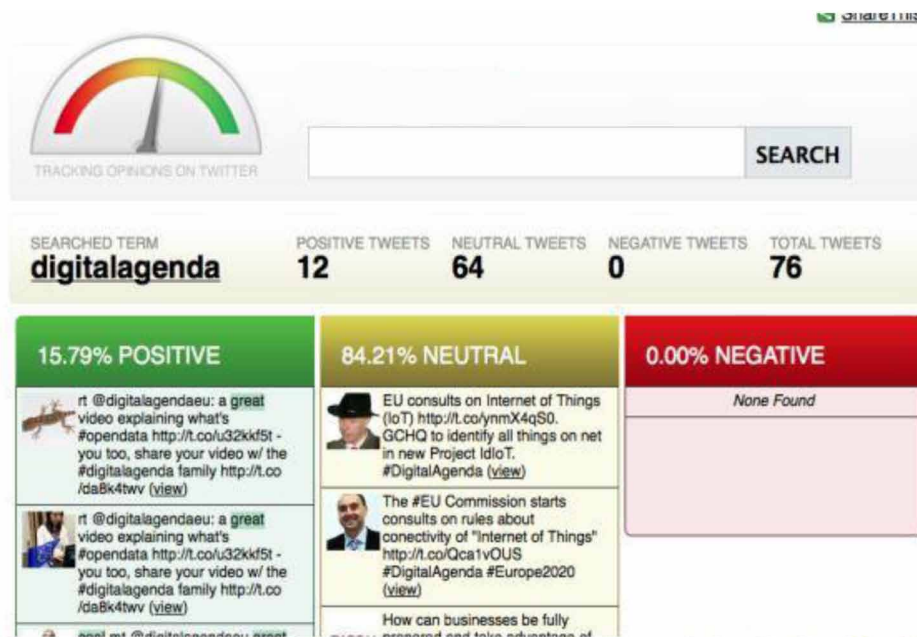
With this large amount of text data in the web, proper processing of this data has become a necessity. Opinion mining or sentiment analysis is a Natural Language Processing which analyses the text and identifies the user's viewpoint or opinion defined in various forms of positive, negative or neutral comments as shown in Figure 1 (Osimo & Mureddu, 2012).

Opinion mining is a method to find and refine the subjective information from text documents, and sentiments analysis determines the sentiments of the writer relating to some concept. The sentiments may be his/her judgment, mood, and experience. Conversion of a small amount of text to their own feature vector is the basic step in any data-driven approach to sentiment analysis. Term frequency is considered to be an essential part of traditional information retrieval and text classification tasks.

The main focus of this chapter is on tweets posted by the public about "The Big Billion Days" sale conducted by Flipkart. We assumed that the Tweets are the best approximation of user sentiments as opposed to typical or conventional internet articles and weblogs. One of the reasons to use Twitter data is that the amount of relevant data is much higher as compared to traditional sites. However the response time of the twitter data is very short or prompts and also more general, this can be inferred from the fact that the number of users is more in twitter as compared to other sites.

Tweets and text which are implemented here are just a short sentence, not a complete document. And the language which is used here to convey feelings are mostly informal having the self-designed spelling of the words and punctuations used in the text, similarly many slang and new words, URLs, and various

*Figure 1. Snapshot of Twitter data*



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