The sentiment of user comments in relation to sponsored branding on YouTube

How user comments, when consulting (paid) product review videos on YouTube, influences brand attitude and thus predicts purchase intention of consumers.

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Abstract

After the introduction of the Internet and several social media platforms, advertisers use narrative advertisement to influence potential consumers. However, consumers are becoming more vocal and critical and with the easy accessibility of the Internet, and engage in online discussions that can potentially influence the attitude towards a brand or product and the intention to purchase. Through product reviewing on YouTube, consumers can share and express their opinion regarding a specific brand or product with other consumers. Advertisers are now collaborating with these reviewers through sponsorship deals in order to talk about their brand, and thus advertise and promote them. Via comments with different sentiments on YouTube, users can discuss and express their opinion and emotion towards the associated brand which is being talked about in the video. This research sets out to investigate the potential influence these user comments underneath a video on YouTube has on the brand and product that is being reviewed by a consumer. The research is guided by the following research question: How and to what extent do the sentiment of own and others’ YouTube comments and review type influence brand attitude and purchase intention of products featured in a review video on YouTube? A quantitative research method was conducted, using a survey to retrieve data from the participants in order to analyse and help answer the research question. The experiment consisted of a (paid) product review video and linked this to user comments, which were chosen after performing a sentiment analysis, potentially influencing the brand attitude and purchase intention of the participant. This classical experimental design consisted of ten separate conditions and retrieved 412 completed surveys. According to the analysis of the findings, the sentiment of chosen comments on YouTube influences brand attitude positively. Subsequently, brand attitude has a positive relation with purchase intention. Conversely, reading comments that other users have written do not influence any behaviour towards commenting or attitude towards a brand. Also, a narrative advertising strategy used into product reviewing on YouTube is not of importance in the end. This study recommends similar researching for distinct products, while focusing on target groups, even outside the social media platform of YouTube.

KEYWORDS: Brand Attitude, YouTube Comments, Review Video, Purchase Intention, Sponsored Advertising, Disclosure
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1. Introduction

YouTube has over a billion users according to its statistics page. That is almost a third of all Internet users. People watch hundreds of millions of hours of YouTube videos and generate billion of views every day (YouTube Statistics, 2017). The platform is one of the most successful websites since its establishment in 2005 besides Facebook (Kallas, 2017). YouTube provides a service for users to share various kinds of videos online, from amateur videos like lip-syncing teenagers and cooking recipes to news broadcasts (Cheng, Dale, & Liu, 2008; Freeman & Chapman, 2007; Van Dijck, 2009). YouTube has emerged as an important social media platform to share individual stories and experiences through videos with others (Pace, 2008) and has impacted Internet traffic, reshaping popular culture. The success of YouTube lies in the easy-to-use integrated online platform where uploading, managing, sharing and watching videos is easier to do than its competitors. YouTube is a user generated content (UGC) website, in which the users are participatory and creative. It allows users to tag the uploaded videos with keywords so that the chances of the video getting watched by more people becomes higher. Users can also rate and comment on the videos, enables communities and groups to form, which has contributed to its success (Cheng et al., 2008). Because of the huge success of UGC websites it came as no surprise that in 2006 ‘You’ became the ‘Person of the Year’ by Time Magazine (Van Dijck, 2009).

A wide range of UGC websites has adopted features and new opportunities that enables social interaction and networking to take place between its users. Among all UGC websites, YouTube is the largest UGC video on demand system (Cha, Kwak, Rodriguez, Ahn & Moon, 2007) and is defined as a content community (Smith, Fischer & Yongjian, 2012). YouTube offers such a feature where users are able to create a personal profile page, which YouTube calls ‘channel page’ (Lange, 2007). Using their personal profile to access YouTube, users are able to comment on videos they watch, if commenting is allowed by the video’s owner. Posting comments as a response to the content, particularly on social websites, has become an essential feature (Hu, Sun, & Lim, 2008; Hsu, Khabiri, & Caverlee, 2009). According to Lange (2007) users who post comments prompt the video maker to read or respond to the comment. Comments can be considered implicit links between users, representing discussion among them who respond to one another and the interaction between the user and user who posts the video. A wealth of comments is a good indication for the significance of the related object (Mishne & Glance, 2006). With the associated comments, users can express their opinions or respond to the video content. Comments are therefore used for self-expression, providing emotional support, reminiscence, grieving and advice, as well as direct comments on the video itself (Madden, Ruthven & McMenemy, 2013). And according to prior research, viewers’ perceptions regarding the content of a video are influenced by comments written by others’ (Siersdorfer, Chelaru, Nejdl & San Pedro, 2010; Walther, DeAndrea, Kim, and Anthony, 2010; Schultes, Dorner & Lehner, 2013).
Since the beginning of the World Wide Web in 1994, the Internet has become an advertising medium in addition to its being a source of information and data. Initially, advertising took the form of interactive banners appearing on the visited website. Since then, cookies, corporate websites, push technology, pop-up advertising, web communities, shopping bots were all used for advertising purposes. After 2000, other ideas were introduced such as loyalty marketing and viral marketing. Through e-mails, customer relationships could be maintained, but with viral marketing, customers play a large role in the multiplicative spread of a brand’s name. Sharing advertisements with others became easier, with online communities and weblogs becoming more popular. With the introduction of YouTube, companies could now advertise videos that are more accessible to a larger audience (Barnes & Hair, 2009).

When YouTube was founded as a consumer media company in 2005, the intention of YouTube was to share exclusively user-generated videos. However nowadays, the platform has become largely an online destination for shared content originating from professional sources (Freeman & Chapman, 2007). Only a small percentage of the users actually create their own content to share with the world. Still, the majority of the users are passive viewers (Van Dijck, 2009). This shift in use of YouTube made it a an attractive online medium for advertisers. Furthermore, the most frequent users of the platform are the current younger generation between the age of 18 to 34. This generation watches more YouTube videos compared to any cable television channel. And YouTube also offers customized versions for mobile devices in order for users to view videos with more ease (Dehghani, Niaki, Ramezani & Sali, 2016). The videos on YouTube from users and advertising agencies could also be easily embedded on other social networking sites such as Twitter and Facebook (Barnes & Hair, 2009).

According to Brown (2005), videos with branding may be the most powerful method of creating a strong mental impression on its viewers. A brand is a mental image that an individual has when they hear the name of the company. Videos enhance the public’s impression of the brand and build the brand. Verbal, vocal and visual communication characteristics converge in a video. Thus, the viewer is impacted on multiple communication fronts (Waters & Jones, 2011; Morency, Mihalcea & Doshi, 2011). With the use of these three characteristics, the recipient of the video is more likely to remember the key message (Mehrabian & de Wetter, 1987). Branding through videos occurs not only for commercial purposes, organizations such as (non)profit and government agencies are using social media as well to spread their news and information, including YouTube (Ferguson, 2008).

Social media websites have become a growing source for information. Sharing opinions by users on various topics is a trend as well on YouTube. By combining audio and visual through a video, the information by the speaker gets to be experienced more valuable and with the right sentiment, compared to textual reviews (Wöllmer, Weninger, Knaup, Schuller, Sun, Sagae & Morency, 2013). Users record videos to inform other users of their personal experiences regarding a product, entity or a particular event (Morency, Mihalcea & Doshi, 2011). With this growth, consumer review videos have become an
increasingly valuable and influential source of information because of their capacity to influence consumers’ buying decisions (Bartikowski & Walsh, 2014). Consumers visit YouTube frequently to search for product reviews before purchasing a product (Wu, 2016). Most of these opinions are voluntarily and are considered to be honest. According to an online study by BuzzMyVideos and OnePoll, YouTube’s content creators generate the most trust with product reviews (Morrison, 2015).

But there are also videos that use ‘narrative advertising’ to promote a product or brand. In narrative advertising, the advertisement is designed to blend in the page content. On YouTube, disclosure language is integrated in videos where the creator mentions that there is a sponsored product being used. The terminology commonly used includes: Sponsored (Content), Promoted (By) or Advertisement (Manic, 2015). Consumers generally do not view YouTube videos as a source of advertisement, therefore marketing in YouTube can be far more effective than traditional marketing. There are three forms under which sponsored activities on YouTube can be found: “(1) explicit sponsorship where the sponsoring company pays the YouTuber a flat fee, or a specified amount per number of views on a video specifically created to market a brand or product, (2) affiliated links where purchases made through the link, or coupon code provided by the YouTuber will help the YouTuber earn a commission on the sale, and (3) free product sampling where companies send products to YouTubers with the hope that they will create product reviews, advertorials, and just general exposure of the product” (Wu, 2016).

Viewers on YouTube are becoming more aware of the presence of a marketing strategy used in videos, and some even point out their suspicion of a video being sponsored in the comment section. They appreciate transparency about product placements, endorsements or sponsorships (Wu, 2016). Muli Salem, product manager at YouTube writes on their blog, “YouTube creators are among the most influential voices in media today. Since brands increasingly recognize the value of the connection creators have with their fans around the world, they are investing in collaborations to reach viewers in interesting and authentic ways. (..) While there are a variety of ways creators can disclose paid promotions, today we are launching a new, optional video feature that adds visible text on the video for the first few seconds a viewer watches, informing viewers of a paid promotion” (Salem, 2016, para. 1, 2). The difference between a voluntary review video and a paid review video is more obvious to the viewer. According to prior research, there is a distinction between both types in the perception by the receiver of the review video. Voluntary review videos are experienced more honest (Bae & Lee, 2011; Morency, Mihalcea & Doshi, 2011), whereas paid review videos may have a negative effect on the credibility of the information (Kozinets, De Valck, Wojnicki & Wilner, 2010; McQuarrie, Miller & Phillips, 2013). Therefore, both types of product reviews on YouTube will be researched.

The main goal of advertising is the purchase of the promoted product. In order for this to happen, a potential buyer must be preconditioned by first raising their brand awareness, and then effecting
changes in their attitudes toward it before purchase is considered (Percy, 1992). Opinions by others can influence the decision making process of an individual (Cambria, Schuller, Xia & Havasi, 2013; Takács, Flache & Mäs, 2014). Thus, comments with a sentiment, as a response to a voluntary and paid product review video by other viewers on YouTube can potentially influence one’s own opinion about the review information and also impact brand attitude and ultimately purchase intention. Therefore the following research question has been formulated:

*RQ: How and to what extent do the sentiment of own and others’ YouTube comments and review type influence brand attitude and purchase intention of products featured in a review video on YouTube?*

### 1.1 Academic and Societal Relevance

As YouTube becomes more integrated in the surfing habits of people using the Internet, advertisers are using this platform to promote and brand their products (Chen, 2013; Freeman & Chapman, 2007; Waters & Jones, 2011; Morency, Mihalcea & Doshi, 2011). However, prior research on either paid or voluntary review videos, or comments’ potential influence on brand attitude and purchase intention is sparse. Furthermore, a prominent question is if the users comments accompanying the review videos on YouTube as a response to the content have an influence on the brand attitude of the product with the consumers. Previous research has explored the prediction of ratings on comments, the audience that writes comments and to what extent these comments become debates, salient aspects of commenting behaviour and using comments as means for communication and self-expression (Siersdorfer et al, 2010; Thelwall, Sud, & Vis, 2012; Schultes, Dorner & Lehner, 2013; Madden, Ruthven & McMenemy, 2013). There has been prior related research done where comments’ influence in the context of other kinds of videos were examined. For example, user comments affected perceptions about the effectiveness of online Public Service Announcement videos (Walther, DeAndrea, Kim, and Anthony, 2010).

Using marketing strategies through YouTube videos has been a valuable platform for advertisers since it went online in 2005 (Wu, 2016). Therefore, the importance of more research on topics related to advertisements with the use of YouTube, is beneficial to better understand the narrative marketing strategies on this platform. The importance of social media websites as advertising platforms has been growing, thus this research can contribute to the possibilities on YouTube for advertisers. The following example highlights the importance of understanding the use of narrative advertisement on YouTube for advertisers and possibly consumers as well. In 2016, the following article was published on the website of The Independent, “Warner Bros paid YouTube stars for positive game reviews. Warner Bros has been told it really must try harder to adequately disclose sponsored content in the future” (Boyle, 2016, title, para 1). According to the article, Warner Brothers had hired a third-party marketing company which
had paid a high profile gaming YouTube personality money to review one of its released games. The condition of the payment were that the coverage had to be positive. The fact that the YouTube personality was sponsored was not disclosed in the video. Consumers assumed that the product review was on a voluntary basis. The complaint by the US Federal Trade Commission lies not in the fact that content of the video is paid for but that it is not been made clear enough to consumers that the views in the video are not objective (Boyle, 2016). Even though the use of narrative advertising on social media websites is still evolving (Kozinets, De Valck, Wojnicki & Wilner, 2010) and the regulations around disclosure online are apparently not always clearly understood (Boyle, 2016), it is important for advertisers to understand and educate themselves when using marketing strategies through YouTube.

From a more personal perspective, this research can take a closer look in the mindset of YouTube users, which consists of more than a billion viewers a month. As Fransisco Garcia from vice.com mentions, “The comments section on YouTube is not a place of joy. Even the most benign videos have a way of eliciting rage-filled, hateful responses from people who might otherwise be perfectly pleasant individuals” (Garcia, 2016, para. 1). Another author writes, “Why are YouTube comments the worst on the internet? A perfect storm of factors ensures that YouTube is home to the most toxic comment section on the web” (Tait, 2016, title, para. 1). YouTube acknowledges the negative public perception of YouTube comments. The product manager of YouTube mentions on their blog, “We realize that comments play a key role in growing this connection and we are dedicated to making your conversations with your community easier and more personal. We also want to continue to help you shape the tone of your conversations on YouTube” (Lesserd, 2016), thereby implying that the importance of YouTube in the surfing habits of many people is unavoidable and more research is necessary to answer questions related to its influence regarding applied marketing strategies. Therefore, this research will contribute to understand the effects of sentiment in comments better and how this influences the perception of the content and message in the YouTube video. As mentioned by Garcia (2016) and Tait (2016) in their articles, YouTube comments are considered to be more negative than positive by the public. This research will thus look at the influence of the sentiment in comments, linking them to brand attitude and purchase intention.

### 1.2 Chapter Outline

The second chapter will discuss relevant theories and empirical research done in related research fields. An argumentation will be made to support the several constructed hypotheses that will help answer the formulated research question in the introduction. The third chapter will explain the methodologies of the conducted quantitative research and give a better understanding of the choices made. The research design, sampling of the respondents, operationalization of the important research topics and how the analysis in the chapter four are executed. The analysis in the following chapter will look at the findings
of the data. With the findings the hypotheses will either be supported, if the results are significant, or rejected. With additional findings more insights into the research topic will be mentioned. The concluding chapter will summarize and interpret the findings and give answer to the hypotheses and research question. According to the findings new insights will be created, societal or practical implications and limitations will be discussed and new angles will be identified for future research.
2. Theoretical Framework

Academic research on social media websites such as YouTube and Facebook are evolving rapidly. In this chapter, relevant studies on brand attitude, voluntary and paid review videos, comments on YouTube, and purchase intention will be discussed in order to formulate and support several hypotheses. At the end of this chapter the conceptual framework, according to the hypotheses will be presented in figure 2.1.

2.1 Brand Attitude

Advertising is known to have the ability to build associations in consumers’ minds (Yoo, Donthu, & Lee, 2000). These associations are stored in memory and constitute brand equity, wherein consumers hold some favourable, strong and unique brand associations in their memory (Keller, 1993). Through advertising, companies attempt to influence the brand attitude of the consumer by altering consumers’ perceptions about product attributes (Mazis, Ahtola & Klippel, 1975). According to Whan Park et al. (2010), brand attitude is defined as the degree of positivity or negativity with which a brand is evaluated. Fishbein & Ajzen (1975) proposed a theoretical framework in which attitude toward a brand is based on beliefs about that brand, after which attitude determines behavioural intentions to the specific brand. They argue in their article that there is a distinction between attitudes and intentions and propose an integration of three variables: beliefs, attitudes, and intentions. These variables can be instrumental to a marketing strategy, where an advertisement affects the viewer’s beliefs first. Second, these beliefs impact the attitude. Then finally, attitude impacts the behavioural intention leading to a purchase of the advertised product.

The scholars Spears & Singh (2004) researched the construction of attitude toward a brand. An excellent definition according to them is by Mitchell & Olson (1981) who defined brand attitude as an “individual’s internal evaluation of the brand” (p. 318). The definition incorporates three components; First, attitude is centered or directed at a brand. Secondly, attitude is evaluative in nature, containing some degree of goodness or badness towards the brand (Spears & Singh, 2004). And the third component suggests that the attitude towards the brand is an internal state (Eagly & Chaiken, 1993). Spears & Singh (2004) add that attitude is a state “that endures for at least a short period of time and presumably energizes and directs behaviour” (p. 55). They also treat attitude as an “relatively enduring, unidimensional summary evaluation towards an object or brand” (p. 55). The scholars consider attitude to not be same as feelings towards a brand because feelings are transitory, which implies a momentary state. The definition and measurement scale for brand attitude by Spears & Singh
(2004) will be used for this research. To better understand the process of attitude formation and change with regard to brands, the elaboration likelihood model (ELM) will be discussed.

### 2.1.1 Elaboration Likelihood Model

As mentioned before, advertisements change the attitude of the consumers. With the use of persuasive communication, an advertising strategy is developed to influence the beliefs of the consumer towards a brand. The ELM is a theoretical model for attitude change under persuasion (Petty & Cacioppo, 1983) and explains the processes that are responsible for changing attitudes and for enhancing the strength of attitudes (Lee, Park & Hun, 2007).

According to the ELM, consumers can follow two different persuasion routes when they are exposed to persuasive communication used an advertisement, the central and peripheral route (Cho, 1999). There is also a difference in the processing of information between people who have high or low involvement with a brand. This has strong implications for the persuasion strategies used. When there is a high involvement with the brand, people will process the message through the ‘central route’, showing a deeper and more careful thought about what the message states (Petty & Cacioppo, 1983). Therefore, the consumer carefully considers and evaluates the information important to him or her to form an attitude (Yu & Chang, 2013). People that have a low involvement will process the message through the ‘peripheral route’. The message in this route might not be personally relevant or consumers do not examine the information as thoroughly. There might be the possibility that change in attitude does not occur (Petty & Cacioppo, 1983; Perloff, 2010, Kruglanski & Van Lange, 2012).

The level of involvement is a strong indicator of brand attitude, either positive or negative. The ELM can explain the level of involvement, as it reflects the process of acquiring knowledge and understanding, leading to either a positive or negative brand attitude (Percy & Rossiter, 1992). The best method to influence a person, leading to a positive high involvement with a brand and hoping for a positive attitude instead of a negative attitude, is to have a strong argument with relevant points regarding the product to convince the consumer (Yu & Chang, 2013). The ELM is often used in consumer behaviour research, such as describing how consumers respond to printed or other forms of advertisements. If the consumer is motivated and understands the information in the advertisement, an attitude will be formed (Schmitz, 1995). Therefore, through stimuli which is applied in different marketing strategies, consumers are either willing to process a message and are more likely to generate their own thoughts in response to persuasive information. Or they are not able or willing to process a message and are more likely to generate mental shortcuts (Fan & Miao, 2012). Stimuli, such as information in the advertisement itself, but also consumer responses and reviews can influence the brand attitude if there is an involvement towards the content and message.
2.2 YouTube comments

YouTube is a platform where users can share and watch videos on the Internet without a payment. It also allows interaction to take place between its users. Users can rate or comment on videos to express their opinions or respond to the content (Madden, Ruthven & McMenemy, 2013; Anmari, Dimitrova & Despotakis, 2011). There are some restrictions on commenting imposed by YouTube. Users cannot insert images, URLs or html tags. The uploader of the video can also remove, report or hide comments that might be inappropriate or contain spam (YouTube Help, 2017). Rating comments through ‘likes’ or ‘dislikes’ is also possible, where the comments that have gathered the highest number of ‘likes’ are displayed above all the other comments. If there are more comments posted than the visible space allows, the remaining posts only appear in the scroll area (Schultes, Dorner & Lehner, 2013).

YouTube communication can be textual, asynchronous, remote, permanent and/or very public. The comments on YouTube are predominantly and deliberately short, with an average of 11 words (Thelwall, Sud & Vis, 2012) The short online messages can lead to misunderstanding because there is absence of the nonverbal channel in textual communication. Asynchronous communication can lead to misunderstanding as well. This can result from users’ living in different time zones or their accessing YouTube at different times of the day (Hancock, Gee, Ciaccio & Lin 2008; Thelwall et al, 2012).

Even though the comments on YouTube are a minor aspect of the platform, they are socially significant because YouTube is one of the most popular websites with many users, who offer their opinions on videos. Online communication may be different than face-to-face communication because it gives users the possibility to be anonymous. Registrations are mandatory on YouTube before users can comment, but they do not need to offer any resemblance of their ‘real’ identity. Instead, they may use a pseudonym; this option seems to partly free users from social norms without any serious consequences (Friedman, Khan Jr & Howe, 2000).

According to prior research on the reasons why users comment on work content posted and created by others and also their impressions of commenting in general, weblog comments can be considered implicit links between people. It enables a social network to emerge and also indicates the popularity of a weblog (Mishne & Glance, 2006). The amount of comments shows the significance of a particular weblog. Another reason why users comment indicates that users give feedback or share their understanding of the text. Readers then treated comments associated with the blog as an inherent part of the post (Hu, Sun & Lim, 2008). However, research on perception of YouTube comments showed an opposite outcome; participants had a rather negative view on the comments posted on YouTube. The participants considered the comments irrelevant, aggressive and lacking intelligent. It was suggested that the wealth of inferior comments is mainly responsible for the negative image, it
therefore confirmed their claim that users overall communicate their emotions with sentimental tone in comments (Schultes, Dorner & Lehner, 2013).

2.2.1 Sentiment of Comments

When sharing opinions about a video in a comment on YouTube, users are being subjective. This is different than being objective, where factual information is presented (Wiebe, Wilson & Bell, 2011). Kim & Hovy (2004) characterize opinion to comprise a quadruple of a topic, holder, claim and sentiment. In the case of an opinion, the holder believes a claim about a topic and associate a sentiment with the belief, such as good or bad. They identify sentiment as an explicit or implicit expression. This expression can be positive, negative, or neutral. With comments, users participate in online discussions, express friendship or show social support (Kim & Hovy, 2004). Therefore, sharing comments with an emotion on social networking sites are important, as informal messages are constantly posted (Thelwall, Buckley, Paltoglou, Cai & Kappas, 2010).

However, previous research regarding sentiment is mostly focused on the analysis, classification or detection of sentiment. There has not been much academic research on the influence of these comments on the reader. Barsade (2002) does suggest that in communication through text, shared emotions can be contagious. Participants who were exposed to rudeness in the text felt more of a need to participate in the conversation than participants that were exposed to neutral words. Another study that looked at the interpretation of online messages showed that online messages with an emotion are more intense, the reader has more time to read over the text multiple times. A quick response, as is the case with face-to-face communication, is not necessary and the reader can reflect on the emotion of the user that posted the comment (Derks, Bos & Von Grumbkow, 2008).

2.2.2 Commenting on YouTube and Brand Attitude

In a more general context and mentioned before, Hu, Sun & Lim (2008) suggest that comments associated with a document on the Internet are an inherent part of the post. A comment posted on YouTube mostly contains an opinion with a sentimental tone. This can either be with a positive, negative or neutral sentiment. However, the content of the comments typically appear to be mildly to moderately positive (Thelwall et al., 2012). Still, roughly a third of the comments on YouTube contain some negativity, this is apparently also the public perception of comments (Garcia, 2016; Tait, 2016), even though there are more positive comments.

According to Hancock et al. (2008), the Social Information Processing Theory (SIPT) argues that people can express their thoughts, feelings and attitudes with their word choice, punctuation use and timing in text based interaction. Walther (1992) describes SIPT as interpersonal communication
without nonverbal cues for users to develop a relationship in a computer mediated environment. SIPT therefore suggests that users use the information the channel provides them to develop thoughts and make judgments about other people (Westerman, Spence & Van Der Heide, 2012). People form impressions and perceptions based upon the information the channel affords them. In the case of brand attitude, a marketing stimulus such as an advertising affects consumers’ beliefs first (Spears & Singh, 2004). The influenced belief mediates the marketing effect on attitude. Attitude is determined by a set of salient beliefs and a change in attitude must be influenced by changes in those beliefs (Fishbein & Ajzen, 1975).

Positive feelings have been found to be an indicator for a higher positive involvement of a brand (Spears & Singh, 2004). These higher involvement of positive feelings and emotions which people are able to express through online comments and can occur as a response to a deeper and more careful consideration of a stimulus, are processed through the ‘central route’ of the ELM (Petty & Cacioppo, 1983). Subsequently, positive evaluations and opinions towards a brand have been found to be associated with more positive brand attitudes (Mitchell & Olson, 1981). Thus, the following two hypotheses are proposed based on the existing literature.

\[ H1a: \text{Positive commenting by the viewer leads to a positive brand attitude.} \]

\[ H1b: \text{More positive commenting by the viewer leads to very positive brand attitude, indicating high involvement.} \]

2.3 Review videos on YouTube

The Internet is a fast growing medium that offers a lot of creative online possibilities. It has also affected the search behaviour of consumers who use it in their information searches (Peterson & Merino, 2003) and therefore has enabled individuals to share their personal experiences online through reviews. Thoughts and opinions on a variety of topics such as a product, service, company or brand are shared on different online platforms like forums from the perspective of consumers who have purchased and used the product (Dellarocas, 2006; Park, Lee & Hun, 2007). Consumers share personal experiences, evaluations, and opinions which is described as a form of word-of-mouth (WOM). Traditional (offline) WOM has been shown to play a major role for customers’ buying decisions (Richins & Root-Shaffer, 1988; Park, Lee & Hun, 2007) and are considered more credible and trustworthy. Even though consumer reviews provide information that is similar to the information provided by the sellers, they offer more consumer-oriented information, whereas sellers offer more product-oriented information (Bickart & Schindler, 2001). Accordingly, WOM conversations have migrated massively from local social networks and communities to online platforms (Lee, Park & Han, 2007; Ghose & Ipeirotis, 2011). Electronic word of mouth (eWOM) is defined as “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, Gwinner, Walsh & Gremler, 2004, p. 13). Adding to this definition, Wei and Lu (2013) mention that the online customer review is created by the user on the basis of their own experiences of the product. Bae and Lee (2011) suggest that consumers consider eWOM more trustworthy and relevant than information from corporate sources. Compared to traditional WOM, eWOM is fast, anonymous and able to be saved. And next to these advantages, they can be retrieved instantly and transcend time space (Hennig-Thurau, et al., 2004), and have greater credibility, are easier to relate to and more likely evoke empathy with the consumers (Bickart & Schindler, 2001).

Consumers often make offline decisions based on the online information they are looking up and rely on the opinion of other consumers (Dellarocas, 2006). Online consumer product reviews therefore play an important role in consumers’ purchase decisions information that customers perceive as useful sources of additional information before making the final choice (Mathwick 2002; Chen & Xie, 2008; Park, Lee & Han, 2007). Also, online consumer reviews have a higher search, memory and share attitude towards the product than a celebrity endorsement as an advertising strategy (Wei & Lu, 2013). But for companies, reviews can either be beneficial or a threat for them as they have little control over these shared opinions by consumers (Bartikowski & Walsh, 2014).

According to Morency, Mihalcea and Doshi (2011), most of the shared opinions in review videos are offered voluntarily. Therefore, these opinions are considered honest feedback. Online reviewing started in a textual form; however, these days there is a growing number of opinions that are available on YouTube. As mentioned before, videos make a strong impact on the viewer. Using video as a medium for sharing opinions will help the message be more effective on the viewer. The opinions on products could be shared including a discussion of their strengths and weaknesses. With the easy use and access of the Internet and the accessibility of YouTube, people will first search for reviews of other consumers already familiar with the products (Morency, Mihalcea & Doshi, 2011).

### 2.3.1 Paid review videos on YouTube

There is a researched indication that online product reviews influence consumer purchase decisions (Reichheld, 2003; Chevalier & Mayzlin, 2006; Basuroy, Chatterjee & Ravid, 2003; Li & Hitt, 2008). Users who consulted online reviews were more likely to purchase the recommended product twice as often than those who did not (Senecal & Nantel, 2004). Therefore, online reviews are a major driver of product sales, especially when used with a video on YouTube (Morency et al., 2011). Not surprisingly, companies have been attempting to manipulate consumers by influencing the reviews (Hu, Bose, Sian Koh & Liu, 2012). The presence of a marketing strategy, with the use of manipulation in online reviewing, influences the consumer-to-consumer communication (Kozinets, De Valck, Wojnicki &
Online review manipulation is a well-established industrial malpractice. The manipulation of online reviews has been known to exist in book reviews, the travel and music industry, where professional marketers post positive comments regarding new books, albums or restaurants and hotels. However, consumers reading these manipulated reviews may face a serious problem of making the wrong purchase decision based on these manipulated information (Hu et al., 2012).

In the case of YouTube videos, the user who shares their personal experience with a video gets paid or sponsored, in order to artificially review the product or brand. With intrusion of marketing strategies in online reviews, this can potentially even misrepresent the actual quality and experience. This may lead to a negative effect on the credibility of the review and consumers’ perception might be biased against the brand or product (Dellarocas, 2006). Hence, by controlling the review with the use of a payment towards the reviewer might limit the actual needs and negative opinions of the product or brand. However, even in the presence of manipulation, these reviews are still considered informative (Morency et al., 2011).

Narrative advertising is used when the advertisement is designed in a way that it blends in the online platform. With the use of narrative advertising, marketers are strategizing their practices on YouTube (Manic, 2015) and transforming commercial information into stories relevant to the members of particular communities. In the case of online reviewing on YouTube, companies are paying the reviewers to mention and talk about their product or brand. Through paid manipulation, the companies attempt to minimize the negative and amplify the positive product or brand experience (Kozinets, De Valck, Wojnicki & Wilner, 2010).

2.3.2 Review videos on YouTube and Brand Attitude

Prior marketing strategies are based on the view that marketers are clearly and directly seeking to influence the attitudes of consumers (Kozinets et al., 2010). When consumers turn to a product review explicitly for its opinions and recommendations on a brand, it can influence their brand attitude (Perloff, 2010). Previous studies have shown that integrating marketing strategies into reviews will influence the attitude of the receiver more negatively (Kozinets et al., 2010; McQuarrie et al., 2013). Marketing strategies have intruded the online product review domain, transforming interpersonal communication into an intended persuasion effort. When these WOM marketing strategies are used, the reaction of the receiver is mainly negative (Kozinets et al., 2010). Therefore, in the following hypothesis the assumption will be that product reviews on YouTube with no marketing strategy incorporated will lead to a higher brand attitude compared to the product review video that is manipulated with a marketing strategy.
H2: Voluntary review videos on YouTube will lead to a higher brand attitude than paid review videos.

2.3.3 Review videos and commenting on YouTube

The sentiment of comments a YouTube video receives is closely related to the video categories (Thelwall et al., 2012; Siersdorfer et al., 2010). Although negative sentiment in comments was uncommon, it was more prevalent with videos that attract more comments. Conversely, positive sentiment was disproportionally common in videos attracting few comments. Therefore, negativity can drive more commenting than positive commenting when users reply to others’ comments they do not agree with and thus create more discussions out of disagreement (Thelwall et al., 2012).

As previously mentioned, there is an influence on the attitude of the viewer when a review is voluntary or paid. Reviews that entail marketing strategies can receive both positive and negative commenting from the readers, depending on the person sharing the review and the tone used in the review. Also the disclosure regarding the marketing element has an influence on the end of the receiver. A positive comment on a review video with a marketing strategy is more likely to occur when the narrative used is consistent with the goals, context, medium and history of the person sharing the opinion. Even when the strong commercial undertone is not used in the review and when the message is relevant to its objectives (Kozinets et al., 2010).

Accordingly, users comment more when they disagree with the author (Mishne & Glance, 2006). Review videos are shared opinions, users can have a disagreement with these opinions, especially when using an anonymous identity or one with a pseudonym and there is an ongoing discussion about the topic (Thelwall et al., 2012). Therefore it can be suggested that voluntary review videos that do not entail marketing strategies will receive more positive commenting in the following hypothesis, similar to its effect on brand attitude.

H3: Voluntary review videos on YouTube will lead to more positive commenting by the viewer than paid review videos on YouTube.

2.3.4 Mediation effect of Own Comments on Brand Attitude

According to previous study, the topic of a video is an indicator of receiving visible comments with a degree of positive, neutral or negative sentiment (Thelwall et al., 2012). The assumption based on previous research regarding product reviews entails that voluntary reviews are considered more honest when there is no marketing strategy involved (Morency et al., 2011). While manipulated reviews through payment can lead to a negative effect on the credibility of the review (Dellarocas, 2006). Both types of reviewing receive comments with a sentiment involved (Kozinets et al., 2010). Individuals are
sharing feelings and evaluations as a response to the video, but it can also lead to a change in their behaviour (Mitchell & Olson, 1981; Spears & Singh, 2004). Therefore, next to having an influence on the commenting behaviour, the impact of a review might be affecting the receivers in their offline sphere as well and change their beliefs and attitudes towards the brand or product (Perloff, 2010).

Thereby, the suggestion can be proposed that there is an effect of commenting behaviour with a sentiment by viewers mediating the relationship between the voluntary or sponsored product review on YouTube and brand attitude. The following hypothesis will research the proposed mediation effect.

**H4**: Voluntary review videos on YouTube will lead to more positive commenting by the viewer than paid review videos on YouTube, whereby a higher brand attitude occurs.

### 2.4 Effect of others’ YouTube comments

Previous research has been conducted on the effects of social environment on an individuals’ attitude. Others’ opinions can be crucial when one is still undecided on the selection of a personal choice (Cambria et al., 2013). Social influence is therefore a powerful force that is assimilative and fosters opinion convergence in groups (Takács, Flache & Mäs, 2014). However, there has been no previous research looking at the influence of comments on YouTube on brand attitude. The majority of the studies are analyzing commenting behaviour, primarily looking at the category of the video and its popularity, linking this to the sentiment of the comments (Schultes et al., 2013; Thelwall et al., 2012; Siersdorfer et al., 2010; Chatzopoulou, Sheng & Faloutsos, 2010).

As previously discussed, users post comments on a YouTube video to give feedback or share their understanding about the content (Hu, Sun & Li, 2008) and create a social network with other users through the comment section (Mishne & Glance, 2006). The comment section provides a forum which is easy accessible for users to interact with each other or with the person reviewing a brand or product, such as obtaining answers on related question (Wu, 2916). The public image of YouTube comments is nevertheless poor; the comments are considered of little value (Schultes et al., 2013). The following hypotheses will look at the influence of a review video on brand attitude and if this will be affected by the sentiment in comments by other users as the moderator, through an interaction effect.

**H5**: Watching voluntary review videos on YouTube will lead to a higher brand attitude moderated by the sentiment of comments by others.

**H6**: Watching voluntary review videos on YouTube will lead to more positive self-commenting moderated by the sentiment of comments by others.
2.5 Brand Attitude and Purchase Intention

Brand attitude was defined as an "individual's internal evaluation of the brand" (Mitchell & Olson, 1981, p. 318), "that endures for at least a short period of time and presumably energizes and directs behaviour" (Spears & Singh, 2004, p. 55). Fishbein & Ajzen (1975) explain with the theory of reasoned action the relationship between attitudes and behaviours and suggest that attitudes can influence consumers’ intention to change planned behaviour. Purchase intention is therefore defined as consumers’ conscious plan to purchase a product from a specific brand (Spears & Singh, 2004) and used as a behavioural variable to measure consumers’ future contributions to a brand (Kim & Ko, 2012). Purchase intention is also defined as affecting an individuals’ awareness in an attempt to purchase a certain brand (Shabbir, Pulihawadana & Reast, 2009) and as a predictor of the brand a customer chooses to purchase (Turney & Littman 2003). Thus, with marketing strategies, sellers try to influence and change the beliefs and attitudes to elicit a behaviour with potential customers.

Prior research on the relationship between attitudes and purchase intention has shown that a positive brand attitude leads to a higher intention of purchase. The opposite has also been proven, where consumers having a negative attitude towards a brand are often not very willing to purchase the brand related products (Pope & Vegas, 2000). Therefore in the following hypothesis, the proposition is that a higher brand attitude, which has been influenced by the product review video and commenting behaviour on YouTube, will lead to a higher purchase intention.

\[ H7: \text{A higher brand attitude will lead to a higher purchase intention.} \]

![Figure 2.1: Conceptual framework](image)
3. Method

For this research, the influence of self-commenting behaviour on YouTube containing a sentimental element will be mediated on the relationship between the review videos on YouTube and brand attitude. And the influence of comments written by others will be moderated on the relationship between the review videos on YouTube, and both self-commenting on YouTube and brand attitude. The effect of the findings in the involvement of brand attitude will subsequently be tested on purchase intention. All in order to accept or reject the hypotheses in chapter 4, the results. In this chapter, the methodologies and analysis are justified and explained, considering the ethical implications.

3.1 Research Design

The method used to conduct the research is a classical experimental design with ten conditions, where eight groups will be exposed to the manipulated stimuli and two will not. This design is used for quantitative data analysis and it allows for direct comparison between the conditions. The advantage here is the randomization of the participants. Any difference appearing in the post-test should be the result of the experimental variable. Thereby excluding any possible difference between the groups in the beginning. Additionally, an experimental design identifies the independent, dependent, and mediated and moderated variable. It also indicates the way in which randomization should be constructed, with the statistical aspects as well (Kirk, 2009). The goal of the experimental design is to establish a causal connection between variables, in this case the independent and dependent variables. Another goal, according to Kirk (2009), is to extract sufficient information with the minimum use of resources.

In this research, five groups will be shown the manipulated paid review video, where two groups will be exposed to negative comments, two groups will be exposed to positive comments and one group will be exposed to no comments by others, the control condition. The five groups will all see the same paid review video. Likewise, the same experiment will be used for the five groups that will be seeing the voluntary review video, with negative, positive and no comments as the different manipulations. Two groups will solely be asked to choose a comment they would associate with the video without reading comments written by others. The comments for these two groups will have three different levels of sentiment, positive, negative and the inclusion of the neutral sentiment. One group will be shown the paid review video and the other group will be shown the voluntary review video. Table 3.1 shows an overview of the ten conditions and the survey steps each respondent in a given condition was exposed to.
The experiment will be developed with Qualtrics in order to retrieve online data from the participants. Qualtrics allows random distribution of participants to occur, therefore achieving an automatically even distribution of similar and sufficient participants for every condition. Qualtrics is considered to be the world’s most trusted research platform (Qualtrics, 2017), and is an online survey software supported by the Erasmus University Rotterdam. With Qualtrics, participants will be exposed to the voluntary product review video and the stimulus of the ‘paid’ review video, both on YouTube.

Table 3.1 Overview of the conditions

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
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<tr>
<td>1</td>
<td>Voluntary Review</td>
<td>Others’ Positive</td>
<td>Own Comments</td>
<td>Brand</td>
<td>Purchase Intention</td>
<td>Final questions</td>
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<tr>
<td></td>
<td>Video</td>
<td>Comments</td>
<td></td>
<td>Attitude</td>
<td></td>
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<tr>
<td>2</td>
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<td>Others’ Negative</td>
<td>Own Comments</td>
<td>Brand</td>
<td>Purchase Intention</td>
<td>Final questions</td>
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<td>Attitude</td>
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<td>Own Comments</td>
<td>Brand</td>
<td>Purchase Intention</td>
<td>Final questions</td>
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<td></td>
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<td>Own Comments</td>
<td>Brand</td>
<td>Purchase Intention</td>
<td>Final questions</td>
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<td></td>
<td></td>
<td>Comments</td>
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<td>5</td>
<td>Paid Review Video</td>
<td>Others’ Positive</td>
<td>Brand</td>
<td>Purchase</td>
<td>Final questions</td>
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<td>Comments</td>
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<td>6</td>
<td>Paid Review Video</td>
<td>Others’ Negative</td>
<td>Brand</td>
<td>Purchase</td>
<td>Final questions</td>
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<td>Comments</td>
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<tr>
<td>7</td>
<td>Paid Review Video</td>
<td>Own Comments</td>
<td>Brand</td>
<td>Purchase</td>
<td>Final questions</td>
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<td>8</td>
<td>Voluntary Review</td>
<td>Others’ Positive</td>
<td>Brand</td>
<td>Purchase</td>
<td>Final questions</td>
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<td>Video</td>
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<tr>
<td>9</td>
<td>Voluntary Review</td>
<td>Others’ Negative</td>
<td>Brand</td>
<td>Purchase</td>
<td>Final questions</td>
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<td></td>
<td>Video</td>
<td>Comments</td>
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<td>10</td>
<td>Voluntary Review</td>
<td>Own Comments</td>
<td>Brand</td>
<td>Purchase</td>
<td>Final questions</td>
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<td></td>
<td>Video</td>
<td></td>
<td></td>
<td>Intention</td>
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</table>
3.2 Sampling

The units of measurement for the ten conditions will be consisting of at least 30 respondents per condition. In total for ten conditions, a minimum of 300 respondents is required. The sample of this study will be solicited from the Internet through Amazon Mechanical Turk (MTurk), an online international crowdsourcing web service for work that requires and anonymises human intelligence for a small reward (Mturk.com, 2017; Bartneck, Duenser, Moltchanova & Zawieska, 2015). MTurk workers are demographically more diverse than the average university sample, which makes the results more representative of the general population (Buhrmester, Kwang & Gosling, 2011; Bartneck et al., 2015). Buhrmester et al. (2011) argue that the quality of the data obtained from MTurk and other traditional methods is similar. Additionally, payment and even payment levels for respondents do not appear to affect the data quality (Buhrmester et al., 2011; Mason & Watts, 2009).

Thus, the selection of participants will be randomized, suggesting that the respondents at the time of the experiment are probabilistically similar on the average (Kirk, 2009). Participants will be selected randomly through convenience sampling with the easy accessibility of respondents from Mturk. This increases the convenience of recruiting and is a type of non-probability sampling (Kothari, 2004; Kumar, 2011). The compensation rate used for one worker on MTurk is USD 0.15.

3.3 Operationalization

The variables used in this research are brand attitude, review videos on YouTube, sentiment of YouTube comments and purchase intention. Most researchers prefer 5- or 7-point scales because it allows respondents to indicate shades of grey in their opinions and not let them be overwhelmed by more points on the scale (Perloff, 2010). Brand attitude and purchase intention will be measured using a 5-point Likert scale in this research, therefore containing a midpoint. According to Bouranta, Chitiris & Paravantis (2009), a 5-point Likert scale appears to be less confusing and to increase response rate (Hayes, 1992). Also, the utility of having more than 5 points to choose from would generally be minor (Lissitz & Green, 1975).

3.3.1 Brand Attitude

According to Fishbein & Ajzen (1975), brand attitude is based on beliefs about an object with behavioural intentions towards it. To measure brand attitude, Spears and Singh’s aggregation of attitude items will be used. The scholars studied 52 distinct items for attitude towards a brand. The judgment criteria for brand attitude was to retain only items that met the conceptual definitions of brand attitude. The items also had to be generalizable to a wide range of products and services (Spears
With their final five chosen items, brand attitude will be measured. The different items all reliably measure the consumers’ attitude towards a brand. The following items on a five point Likert scale have a good explanatory value and will be used in the questionnaire; unappealing/appealing, bad/good, unpleasant/pleasant, unfavorable/favorable, and unlikable/likable.

3.3.2 Review video on YouTube

To sort out if a product review video on YouTube is voluntary or sponsored, either in the video itself it should be mentioned by the user, or a 10-second text disclosure in the beginning of the video appears that shows “Includes paid promotion”. For the experiment, a product review video was chosen from YouTube with the title ‘Product Review: Packing Cube Review (CONTEST CLOSED)’ from the channel of soniastravels (Gil, 2013). In the chosen video, Sonia Gil reviews different types of packing cubes that will best fit the travel needs of interested consumers. This product is assumed to have no gender preference. Most of the online product reviews consist of electronic goods or beauty products. These products tend to be more gender influenced, for example electronics, games/toys and sports/outdoor products were significantly more associated with the interest of men (Mangold & Smith, 2011). On her YouTube channel, Sonia’s Travel, she creates videos where she wants her viewers to learn more about convenient traveling and she shared several tips and tricks with her viewers. Though it is not known if the reviewer in the chosen video is being sponsored by the different brands that are being discussed and reviewed, there is no mention of this being made.

In the experiment, the video that is being used was edited in order to make it more suitable for the survey. In the video, three different brands of packing cubes are being reviewed. In order to keep the video shown to the respondents short and easy to understand, only one brand was chosen, the packing cubes of the company Eagle Creek. The video was edited into two different versions. In the first video there is no mention of the reviewer being sponsored, which is true to the original video. The second video showed a 10-second text disclosure in the beginning of the video with the message “Includes paid promotion”. However, because the disclosure is rather small and there is a risk of viewers not noticing and reading it properly, therefore the following message has been added in a more visible notion: ‘Sponsored by Eagle Creek’. The respondents were not aware of the manipulated stimuli before viewing the video or answering the questions. Both versions were then uploaded separately on YouTube and the links were shared with the respondents, according to their condition. After the experiment the links were taken offline.
3.3.3 YouTube comments

In order to retrieve comments for sentiment analysis from YouTube, the application tool Netvizz was used. Netvizz can be described as “a data collection and extraction application that allows researchers to export data in standard file formats from different sections of the Facebook social networking service” (Rieder, 2013, section Abstract, para.1). Originally intended to extract and export data from Facebook, it can now also be used for data collection from YouTube.

The first step was to select the videos from which the comments needed to be extracted. The channel of Sonia Gil, Sonia’s Travel, has 14 product review videos online. Comments from each of the 14 video were extracted with Netvizz, these comments are relatable to the comments from the used video in the experiment. The comments were downloaded on the 4th of May 2017 and then renamed as .txt files for convenience. The files were then exported to the external application Excel where the data was divided in tabs to have a better overview. The second step was to estimate the strength of positive and negative sentiment with the use of SentiStrength for each comment, an automatic sentiment analysis program. Each saved file was separately uploaded into the program and automatically judged on a 5 point scale as follows for both positive and negative sentiment (Thelwall, Buckley, Paltoglou, Cai & Kappas, 2010). In total, 1223 comments were analysed through SentiStrength. The last step was to select comments which could be used for the experiment. For the six conditions, in which respondents had to select their own comment in three steps. Each step showed the respondent three comments, one positive, one negative and one neutral comment to choose from. After that, for four conditions for each video, either five positive (+3 and +4) or negative (-3 and -4) comments had to be selected. This had to be either -4, -3, +3 or +4 to indicate a strong sentiment.

3.3.4 Purchase Intention

Purchase intention is measured with the three item scale adapted from Baker & Churchill’s (1977) intention to purchase scale, a scale to measure advertisement effectiveness. The scale measures consumers’ intention to purchase products through online branding rather than the actual purchase of a particular product. The three items applied in the questionnaire were: “I would like to try this product”, “I would buy this product if I would see it in a store”, “I would actively seek out this product in a store in order to purchase it”. The questions are rated from “definitely not” (=1), “not” (=2), “don’t know” (=3), “yes” (=4) to “definitely yes” (=5). The last two items were adjusted according to the online shopping environment in which this research focuses on: “I would buy this product if I would see it online” and “I would actively seek out this product online in order to purchase it”.

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3.3.5 Manipulation Check

Two extra questions were added at the end for all the respondents to answer. This was done in order to check if they experienced a manipulation in the survey. The question was: “Was the YouTube reviewer sponsored by Eagle Creek?”, their answer could either be “yes”, “no” or “don’t remember”. Another answer was for the manipulation of the sentiment with others’ comments. The question was: “What was the tone of the comments shown after the video?” This question does not apply for the group that were not shown comments by others’, therefore deleting their responses from the data. The options the respondents could choose from were: “positive”, “negative”, “neutral” and “don’t remember”.

3.4. Analysis

The findings from the questionnaire will be analysed using SPSS and an add-on to measure mediation and moderation effects (Hayes, 2013). To test the moderated mediation hypotheses, Hayes PROCESS Macro (Hayes, 2013) will be applied (figure 2.1). When the path between X and Y, and X and M is affected by M in an otherwise simple indirect model, the effect is described as moderated mediation (Preacher, Rucker & Hayes, 2007). This model describes hypotheses 5 and 6, testing the impact between either type of review video or own comment, and brand attitude being affected by the exposure of comments written by other users on YouTube in the mediation model described by hypotheses 1 to 4.

PROCESS is the command of the macro code in SPSS provided by Hayes (2013) to determine the significance of the moderated mediation effect. The use of PROCESS is reliable, considering the fact that his work is used more than 10,000 times according to Google Scholar (2017). According to figure 2.1, X is the type of product review video, Y as the outcome the attitude towards a brand, M the sentiment of self-commenting as the mediator and W comments written by others as the moderator. Figure 3.1 displays model 8, which allows up to 10 mediators operating in parallel (Hayes, 2013).
3.5 Reliability and Validity

If a research instrument is consistent and stable, hence predictable and accurate, it is said to be reliable. The greater the degree of consistency and stability in an instrument, the greater its reliability. Therefore, when a test is repeated under constant conditions it should give the same results (Kumar, 2011). According to a confirmatory analysis done by the researchers themselves on the measurement of brand attitude, the composite reliability was .97, indicating adequate levels of internal consistency between the five items from Spears & Singh (2004). The Cronbach’s alpha for brand attitude items from the pre-test data in the study of Myers and Kwon (2013) on consumer purchase was .90, confirming and supporting the high reliability of the five items adapted from Spears and Singh (2004). Also, the measurement of purchase intention, which consist of three items and will also be measured through a five-point Likert scale, shows a high reliability. Originally developed by Baker and Churchill in 1977, it is still considered a reliable scale for measuring the intention to purchase products or services from a brand, with more recently having a Cronbach’s alpha of .86 in a study investigating the influence of Facebook applications and activities on consumers purchase intention (Richard & Guppy, 2014).

The definition of validity is the degree in which the research measures what it is designed to measure (Kumar, 2011). Therefore it is important to look at the validity of the instruments used to measure brand attitude. The measurement of brand attitude used in this experiment was developed by Spears and Singh (2004) and consists of five items, which will be measured through a five-point Likert scale. According to Roswinanto (2015), the measurement of brand attitude used in this experiment can be described as a validated scale. The scale of purchase intention by Baker and
Churchill (1977) can also be described as a validated scale, demonstrating an acceptable convergent reliability (Richard & Guppy, 2014).
4. Results

The following chapter will elaborate the findings through the analysis of the data. After editing the data to be able to analyse, the following findings will attempt to give more insight into branding on YouTube with the use of review videos and accept or reject the proposed hypotheses.

4.1 Descriptive Statistics

As mentioned in the previous chapter, 412 fully completed surveys were collected that were valid to use for the analysis of the data. Among the participants, 59% \((N = 243)\) were male and 41% \((N = 169)\) were female. The average age of the respondents was 32 years \((SD = 9.69)\), where the youngest respondent was 18 and the oldest 73. Of the 412 respondents, 55% was 30 years or younger. As for their current occupation, the modus was being employed \((N = 312, \text{ response rate } = 76.2\%)\). Followed by being a student \((N = 39, \text{ response rate } = 9.5\%)\) and homemaker \((N = 33, \text{ response rate } = 8\%)\).

The nationality of the respondents showed an imbalance. The majority of them were Indians \((N = 212, \text{ response rate } = 51.5\%)\), followed by Americans \((N = 129, \text{ response rate } = 31.3\%)\). The third biggest group had an unknown nationality, either filling in their race, such as white or Caucasian, and religion, such as Christian or Hindu. These were recoded to unknown. 7 Venezuelans filled in the survey \((\text{response rate } = 1.7\%)\), the rest of the nationalities had 4 or less people among them.

4.2 Reliability

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s Alpha ((\alpha))</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own Comment</td>
<td>0.76</td>
<td>2.19</td>
<td>0.67</td>
</tr>
<tr>
<td>Brand Attitude</td>
<td>0.95</td>
<td>3.86</td>
<td>1.10</td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>0.92</td>
<td>3.53</td>
<td>1.12</td>
</tr>
</tbody>
</table>

The three scales have a moderately to good reliability with all the used items in the experiment (Table 4.1). The Cronbach’s Alpha of the variable own comment is \(\alpha = 0.76\), indicating a moderate reliability. The scales for the variables brand attitude and purchase intention both have a Cronbach’s Alpha of good reliability, namely \(\alpha = 0.95\) and \(\alpha = 0.92\). The scales appear to measure the three variables correctly. Also, according to the Cronbach's Alpha if Item Deleted column in SPSS, no item had to be deleted within each of the three scales to create a higher Cronbach’s Alpha.
4.3 Manipulation Check Results

In order to measure if the respondents were aware of the manipulated stimuli, two questions were asked at the end of the survey to all the respondents for a manipulation check. The first question was about the reviewer in the video being sponsored or not. The second question was about the tone of the comments shown after the video. This question was asked to all the respondent, but only apply to those in the conditions where comments written by others was indeed shown (N = 334). This excludes respondents in conditions 7 and 10. With the use of a Pearson's chi-square test in SPSS, the association between two variables will be tested.

The first manipulation check tested the assumption and awareness of the review video being sponsored or voluntary with the question: ‘Was the YouTube reviewer sponsored by Eagle Creek?’.

According to the calculated Pearson’s chi-square test, a significant interaction is found ($\chi^2 = 7.36, p < .05$). The respondents that were shown the sponsored video (N = 208) were more likely to having noticed the manipulated stimuli and the message that the video was sponsored (53.8%), while others in the sponsored video conditions either chose don’t remember (30.3%) or not sponsored (15.9%) as an option. Even though there appears to be a significant interaction between both variables, this is not the case for the respondents in the conditions that were shown the voluntary video (N = 204). Most of the respondents in these conditions chose the option of the reviewer being sponsored (42.2%), over don’t remember (32.8%) or not sponsored (25%). According to the results of the first manipulation check, the respondents in the manipulated conditions, where they saw the sponsored review video, were largely aware that the reviewer was supposedly sponsored by the brand. This was expected, as the message was visible in the video for the respondents where they could read about the sponsorship between the reviewer Sonia Gil and the brand Eagle Creek. Respondents from the conditions that were shown the voluntary review video did not see any message included in the video about the reviewer being sponsored or not. Most of these respondents chose that the reviewer was sponsored. There were no big differences between the three response options, indicating that with a product review without a sponsorship message, there appears to be a doubt whether the reviewer is being paid to review a certain product or brand.

The second manipulation check tested the assumption and awareness of the sentiment in the comments written by others, with the question: ‘What was the tone of the comments shown after the video?’ The Pearson's chi-square test shows a significant interaction between both variables ($\chi^3 = 102.09, p < .05$). Respondents that were shown the positive comments written by others (N = 163), mostly chose positive (79.8%), while others chose neutral (16.6%), negative (1.2%) or don’t remember (2.5%). The same trend is seen with the respondents that were shown the negative comments written by others (N = 163), where the majority of the respondents chose negative (44%), but the differences seem slightly lesser than with the respondents that were shown the positive
comments. Positive (31.6%) and neutral (21.1%) also had a high response rate, with don’t remember (2.9%) as an option that was chosen the least. According to the results from the second manipulation check, as expected, respondents were aware of the sentiment in the shown comments written by others that they were exposed to. The respondents that were shown the positive comments largely chose the positive option and the same is found with those who were shown the negative comments, where negative was chosen the most.

To discover if having the assumption that the reviewer is sponsored, the variable perceived sponsorship was constructed. Respondents \( N = 128 \) who assumed that the reviewer in the video was paid by the brand, either with having seen the voluntary video or the paid video, could be influenced by this assumption while watching the video and expressing their brand attitude. This variable will be used as the independent variable instead of the type of video for a final manipulation check. According to the analysis in SPSS with the use of PROCESS, there appears to be a significant difference between respondents that perceived the video not to be sponsored \( (M = 4.12, SD = 0.83) \) and respondents that perceived the video to be sponsored \( (M = 3.84, SD = 1.06) \), showing a difference in brand attitude, as \( R^2 = .37 \). The model explains 37% of the variability in differences to the response data around its mean, \( F(3, 124) = 18.03, p < 0.001 \). When respondents were of the understanding or assumption that the reviewer was not sponsored, they were more influenced by the exposed or chosen comments and thus had a higher brand attitude.

4.4 Hypotheses Testing

The results of the seven hypotheses according to the findings of multiple tests will be discussed in this section, providing a thorough analysis of the obtained data by the Qualtrics experiment for which the tool SPSS was used with the use of the add-on PROCESS (Hayes, 2013). T-Tests and linear regressions with \( p < 0.05 \) were considered statistically significant. An overview of the significance and path coefficients relationships is shown in figure 4.1.
4.4.1 Commenting on YouTube and Brand Attitude (H1a and H1b)

The first hypothesis expected that if self-commenting was more positive on YouTube, it would lead to a positive brand attitude. To test this hypothesis, the data from conditions 1 to 4, 7 and 10 were used, consisting of the respondents that were asked to pick either a negative, neutral or positive sentiment ($N = 252$). In this case, it was of no importance if the respondents were exposed or not to comments by others. Even though conditions 1 to 4 were exposed to comments by others, the data can still be used to test the direct relationship. The relationship between the sentiment in self-commenting as the independent variable, and brand attitude as the dependent variable is still valid to analyse from the data resulting from these conditions.

Both variables had to be adjusted for the first hypothesis. The variable own comment also had the neutral and negative sentiment. To measure only positive commenting, a separate variable for positive self-commenting was created, dividing the scale points either by positive (4 and 5) or non-positive (1 to 3). This also applies for brand attitude, where a separate variable was created to divide the scale points for either positive brand attitude (4 and 5) or non-positive (1 through 3) brand attitude. With these newly constructed variables and a simple linear regression calculation in SPSS, the hypothesis could be tested to find a interaction between both, whether positive self-commenting predicts positive brand attitude. According to the analysis there is a significant relationship between positive self-commenting and positive brand attitude, $F(1, 250) = 69.22, p < .000$. The $R^2 = .47$, indicating that 47% of the differences can be explained by positive self-commenting having an effect.

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1 Note. $N = 412$, * $p < .05$, ** $p < .01$, *** $p < .001$
on positive brand attitude. Therefore the first hypothesis is supported by the findings and can be accepted.

Hypothesis H1b used the theory of the ELM to test if positive self-commenting leads to a higher involvement in brand attitude through positive brand attitude. To test H1b, the data from the conditions that were asked to choose a comment with a sentiment were used. The data from conditions 1 to 4, 7 and 10 were used as well. To measure positive commenting, the variable for average self-commenting was transformed, dividing this either by positive or non-positive. For high involvement in positive brand attitude, the variable brand attitude was transformed into a separate variable as well, dividing by high positive brand attitude, scale point 5, or non-high positive brand attitude, scale points 1 to 4. The analysis showed that there is a relationship between positive commenting and high positive brand attitude, $F(1, 250) = 95.16, p < .000$. The $R^2 = .53$, where 53 % of the differences between both variables can be explained by the effect positive self-commenting has on very positive brand attitude, thus indicating higher involvement when choosing more positive comments. Therefore, according to the findings, the more users choose a positive comment, the higher their chances are of having more involvement with positive brand attitude. Hypothesis H1b is supported.

4.4.2 Review videos on YouTube and Brand Attitude (H2)

The second hypothesis proposed that there is a difference in brand attitude when watching either a voluntary product review video or a paid product review video on YouTube. This hypothesis can be tested with the entire data, as all the respondent had to watch either one of the videos and answer the scale of brand attitude from 1 to 5. For the paid video $N = 208$ and for the voluntary $N = 204$. There is no significant difference between the groups. For the hypothesis PROCESS by Hayes (2013) in SPSS could not be used, not the entire sample will be used in the procedure. The reason for the exclusion of samples in SPSS is the different conditions and not all respondents having had the same questions or exposure of the material. An independent-samples t-test is used and showed a minimal difference between the two groups of paid ($M = 3.90, SD = .99$) and voluntary ($M = 3.82, SD = 1.04$), $t(410) = 0.88, p = 0.379$. Both groups have almost similar involvement in brand attitude, with the conditions being exposed to the paid product review video having a slightly higher brand attitude, but the difference is not significant enough according to the analysis. Hypothesis 2 therefore cannot be supported and thus is rejected.

4.4.3 Review videos and commenting on YouTube (H3)

PROCESS in SPSS by Hayes could also not be used to test the third hypothesis, the same problem occurred as mentioned in 4.4.2, therefore the independent-samples t-test will be used. The third
hypothesis states that those watching the voluntary review video on YouTube will lead to the sentiment in self-commenting being more positive. For the paid video $N = 128$ and for the voluntary video $N = 124$. According to the findings from the analysis there is no significant effect between the product review video as the dependent variable and the sentiment of self-commenting as the independent variable. The paid product review video ($M = 2.22, SD = 0.67$) shows a slightly higher mean compared to the voluntary product review video ($M = 2.15, SD = 0.67$). A mean above 2 is the scale point between neutral (2) and positive (3). However, there is no significant difference as the 95% confidence interval does not include zero, $t(250) = 0.94, p = .350, 95\% CI [-.09, 0.24]$. The third hypothesis is not supported and is rejected.

### 4.4.4 Mediation effect of Own Comments on Brand Attitude (H4)

The fourth hypothesis will test the mediation effect, where type of review video is the dependent variable, brand attitude is the independent variable and the sentiment of self-commenting is the mediating variable. Hypotheses 2 and 3 could not be supported, therefore hypothesis 4 cannot be tested. Even with testing the hypothesis in SPSS with the use of PROCESS ($t = -1.13, p = .648$), the results show no indirect effect of the independent variable on the dependent variable, with zero not being in the confidence interval (95% CI [-1.19, 0.05]). Voluntary product review videos do not appear to lead to more positive self-commenting, resulting in a higher brand attitude.

### 4.4.5 Effect of others’ YouTube comments (H5 and H6)

As hypothesis 2 was not supported, the interaction effect of being exposed to others’ YouTube comments cannot be tested. Others’ comments cannot interact the effect between type of product review video and brand attitude as this effect is not significant. Even with testing the hypothesis in SPSS through PROCESS there appears no interaction effect according to the analysis ($t = .45, p = .657$). Thus, hypothesis 5 needs to be rejected. Hypothesis 3 was not supported as well, therefore the interaction effect being exposed to others’ YouTube comments on the relation between type of product review video and brand attitude cannot be tested. That relation appeared to be not significant. Therefore hypothesis 6 cannot be tested. Hypothesis 6 is rejected as well ($t = .87, p = .385$).

### 4.4.6 Brand Attitude and Purchase Intention (H7)

The last hypothesis tested if there is a positive relationship between brand attitude and purchase intention. According to the analysis from SPSS, brand attitude is a predictor for purchase intention, as the effect appears to be significant, $B = 0.70, t(410) = 24.49, p < 0.001, 95\% CI [0.65, 0.76]$. Thus, the
higher the brand attitude is, the higher the intention is to purchase the product. Hypothesis 7 is supported by the analysis of the findings.

A second mediation model where brand attitude is applied as a mediator to discover if it mediates the relationship between the type of review video and purchase intention is not possible. The first relationship between the type of review video and brand attitude is not significant (H2), but the second relationship between brand attitude and purchase intention is (H7). Therefore, the mediation effect between the variables cannot be tested as both relationships need to be significant. However, there is a positive relationship between the manipulation check variable of perceived sponsorship and brand attitude. According to the analysis (N = 282) there is a difference between the group who perceived sponsorship in the video (M = 3.84, SD = 1.06) and the respondents who did not (M = 4.13, SD = .83), t(280) = -2.21, p < .05. With the variable perceived the second mediation model is possible (figure 4.2).

The results have been analysed with the mediation model 4 in PROCESS (Hayes, 2013), where the findings showed a significance, F(2, 279) = 239.82, p < 0.001, R² = .63, 95% CI [-.46, -.04]. Thus, brand attitude mediates the relationship between perceived sponsorship and purchase intention. Therefore, if the viewer views the video as not sponsored, brand attitude will be higher, leading towards a higher intention to purchase.

\[ N = 282, * p < .05, ** p < .01, *** p < .001 \]
4.5 Summary of Statistical Results

The table in this section provides a quick overview of the statistical results.

Table 4.2 Overview of statistical results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Supported or rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1a</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 1b</td>
<td>Supported</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>Rejected</td>
</tr>
<tr>
<td>Hypothesis 3</td>
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<tr>
<td>Hypothesis 5</td>
<td>Rejected</td>
</tr>
<tr>
<td>Hypothesis 6</td>
<td>Rejected</td>
</tr>
<tr>
<td>Hypothesis 7</td>
<td>Supported</td>
</tr>
</tbody>
</table>

4.6 Additional Findings

Besides the variables used to test for the hypotheses in chapter 4.4, the demographic variables can also be of influence on the dependent variable brand attitude and the mediating variable own commenting. Three control variables were entered in the moderated mediation model to test for other possible differences. The three control variables are age, sex and the two largest nationalities, Indians (\(N=212\)) and Americans (\(N=129\)) and are included in SPSS with PROCESS (Hayes, 2013) as covariates to find out if these demographics influence the relationship in the model. The mediation model, PROCESS model 4, includes the type of review video as the independent variable, brand attitude as the dependent variable and self-commenting as the mediating variable. The moderated mediation model, PROCESS model 8, includes the same mediation model with the variable of others’ comments added as the moderating variable. Both of the models are executed with the control variables, since there appear differences with the numbers (\(N\)) used in the two separate PROCESS analyses. A possible explanation for this difference is the several conditions respondents were assigned to. Moreover, adding the control variables in both models would also highlight the differences with and without the moderating variable.

4.6.1 Control Variable Age

The demographic of age is diverse, where the youngest respondent was 18 and the oldest 73, while the average age of the respondents was 32. According to the analysis as shown in table 4.3, age has a significant effect on the mediating variable in both models. When age is divided into two groups based on the median (30), below 31 and 31 and above, the difference becomes more clear. Thus, the older
people are \( M = 2.25, SD = .65 \), the more inclined they are towards having a positive self-comment after watching the video, compared to people below 31 \( M = 2.13, SD = .68 \). However, age has no significant effect on brand attitude, indicating no substantial differences that can be explained due to the age of the respondents. Additionally, being exposed to comments written by others do not is of no importance for the differences explained because of age.

Table 4.3 Age as a control variable

<table>
<thead>
<tr>
<th>Mediation model on Own Comment</th>
<th>B</th>
<th>SD</th>
<th>t</th>
<th>p</th>
<th>CI (lower)</th>
<th>CI (upper)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.01</td>
<td>.00</td>
<td>2.24</td>
<td>.026*</td>
<td>.01</td>
<td>.19</td>
<td>252</td>
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<tr>
<td>Mediation model on Brand Attitude</td>
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<td>.01</td>
<td>1.25</td>
<td>.213</td>
<td>-.01</td>
<td>.02</td>
<td>252</td>
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<tr>
<td>Moderated mediation model on Own Comment</td>
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<td>.01</td>
<td>2.15</td>
<td>.033*</td>
<td>.00</td>
<td>.02</td>
<td>174</td>
</tr>
<tr>
<td>Moderated mediation model on Brand Attitude</td>
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<td>.01</td>
<td>1.33</td>
<td>.186</td>
<td>-.00</td>
<td>.02</td>
<td>174</td>
</tr>
</tbody>
</table>

Note. * p < .05, ** p < .01, *** p < .001

4.6.2 Control Variable Sex

The second control variable entered as a covariate in both models is the sex of the respondent. As mentioned in the beginning of this chapter, among the respondents, 59% were male and 41% were female. According to the results of the analysis as shown in table 4.4, sex has a significant effect on brand attitude in both models. Female respondents tend to have a higher brand attitude \( M = 3.96, SD = 1.03 \) compared to male respondents \( M = 3.79, SD = 1.00 \). Sex has no significant effect on the variable of own commenting. The differences in self-commenting cannot be explained because of the sex of the respondents. Similarly to the control variable for age, being exposed to comments written by others as a moderator does not explain the differences because of sex.
Table 4.4 Sex as a control variable

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SD</th>
<th>t</th>
<th>p</th>
<th>CI (lower)</th>
<th>CI (upper)</th>
<th>N</th>
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</thead>
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<tr>
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<td>.09</td>
<td>.84</td>
<td>.404</td>
<td>-.10</td>
<td>.24</td>
<td>252</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mediation model on Brand</td>
<td>.22</td>
<td>.10</td>
<td>2.30</td>
<td>.022*</td>
<td>.03</td>
<td>.41</td>
<td>252</td>
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<tr>
<td>Attitude</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderated mediation model</td>
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<td>.79</td>
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<td>-.12</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderated mediation model</td>
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<td>2.11</td>
<td>.036*</td>
<td>.02</td>
<td>.49</td>
<td>174</td>
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<td>on Brand Attitude</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Note. * p < .05, ** p < .01, *** p < .001

4.6.3 Control Variable Nationality

Nationality is the third control variable used as a covariate in both models. According to the final analysis of the additional findings, nationality does not have a significant effect on either of the variables own commenting and brand attitude in both models as shown in table 4.5. Being either Indian or American does not seem to influence the mediating and dependent variable.

Table 4.5 Nationality as a control variable

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SD</th>
<th>t</th>
<th>p</th>
<th>CI (lower)</th>
<th>CI (upper)</th>
<th>N</th>
</tr>
</thead>
<tbody>
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<td>Mediation model on Own</td>
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<td>-.52</td>
<td>.601</td>
<td>-.24</td>
<td>.14</td>
<td>200</td>
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<td></td>
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<td></td>
<td></td>
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<td>-.32</td>
<td>.11</td>
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<td>Attitude</td>
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<tr>
<td>Moderated mediation model</td>
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<td>-.68</td>
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<td></td>
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</tbody>
</table>

Note. * p < .05, ** p < .01, *** p < .001
5. Conclusion

Current research is conducted to explain the influence of YouTube comments, whether reading those written by others or writing them yourself have an interaction effect or mediation effect on the relationship between paid and voluntary product review videos on YouTube and brand attitude, leading to a potential purchase intention. This will be discussed with the research question and the proposed hypotheses.

From the start, internet has become an advertising medium in addition to its being a source of information and data. Especially since the introduction of YouTube, it has become one of the most successful UGC platforms online. The strength of YouTube lies in the ability for users to be participatory and share their creative side, where one type of content creation by users are creating product review videos (Cheng et al., 2008; Morency et al., 2011). Advertisers are now using this type of video creation for advertising purposes (Wu., 2016). Using narrative advertising is an effective method on the platform (Barnes & Hair, 2009; Manic, 2015). Also, through the essential feature on the website for users to leave behind comments, YouTube enables social interaction and networking to take place (Cha et al., 2007). It allows users to share their opinions or leave a response, and therefore create a possible discussion among the users or with the owner of the video. These comments, with or without an sentimental tone, can be of influence to the reader in relation to the content of the video (Siersdorfer et al., 2010; Walther et al., 2010; Schultes et al., 2013; Cambria et al., 2013; Takács et al., 2014). As there was not sufficient research executed on this topic, the main goal of the current study was to examine the influence of YouTube comments on the relationship between the review videos, either sponsored or not, and brand attitude, thus potentially leading to a purchase intention. Therefore, the research question of this study was formulated as follows: How and to what extent do the sentiment of own and others’ YouTube comments and review type influence brand attitude and purchase intention of products featured in a review video on YouTube? This chapter will further interpret the findings presented before, and explain their implications for theory and practice. Also several limitations will be discussed and how these offer opportunities for future research.

5.1 Summary of Findings

With support of the theoretical framework, seven hypotheses were constructed with the purpose to answer the research question introduced in the first chapter. The first hypothesis stated that there is a relationship between the sentiment of self-commenting of YouTube viewers and brand attitude, where positive self-commenting leads to a positive brand attitude (H1a) and positive self-commenting leads to a higher involvement in positive brand attitude (H1b). H1a is supported by the analysis of the
findings. There is a relationship between the sentiment of self-commenting and brand attitude. The relationship is as expected; the findings showed that more positive chosen YouTube comments by the respondents lead to a higher brand attitude, indicating more positivity towards the brand. These findings were aligned with Mitchell and Olson (1981) who state that sharing positive opinions and evaluations towards a brand are associated with positive brand attitudes. More recently, Spears and Singh (2004) stated that before an attitude towards a brand is developed, consumers’ beliefs have to be affected. The findings support the research by Spears & Singh (2004), where the sentiment of self-commenting is an indicator for the attitude towards the brand. H1b is also supported by the findings, indicating an effect as expected; the more positive the self-commenting, the higher the involvement is of positive brand attitude. This finding supports the theory of the ELM, where positive feelings are an indicator for a higher positive involvement of a brand (Spears & Singh, 2004). More specifically, people who are processing the stimulus through the ‘central route’, appear to have a higher involvement of brand attitude (Petty & Cacioppo, 1983). Hypothesis 1a and 1b both showed a main effect between the sentiment of self-commenting and brand attitude, thus this supports the previous research discussed in the theoretical framework.

The second hypothesis stated that the type of review video on YouTube, either voluntary or paid, has a relationship with brand attitude. This is not supported by the analysis of the findings and the hypothesis was therefore rejected. There is no relationship found between the type of review video and brand attitude, thus showing no difference between the voluntary and paid review video. According to prior research, voluntary review videos would lead to a higher positive brand attitude than paid review videos. However, the findings are contrary to the research by Kozinets et al. (2010) and McQuarrie et al. (2013). Marketing strategies included into product reviewing on YouTube do not influence the brand attitude of the consumers. Furthermore, brand attitude is neither more positive or negative when advertisers make use of narrative advertising strategies on YouTube through product reviewing. The findings are more in line with Morency et al. (2011), who argue that even with manipulation of marketing strategies, both type of reviews are considered as informative.

With hypothesis 3 it was discussed that there is a relationship between the type of review video and the sentiment of self-commenting on YouTube. With support of prior research, the hypothesis proposed that voluntary review videos on YouTube will lead to more positive commenting by the viewer than paid review videos. This hypothesis cannot be supported and is thus rejected. These findings are not in line with prior research (Kozinets et al., 2010; Siersdorfer et al., 2010; Thelwall et al., 2012), in which it was pointed out that an applied marketing element into reviews influences the sentiment of the reader more negative. However, the finding does support another critical point in the research of Kozinets et al. (2010), the researcher mentioned that reviews that entail marketing strategies receive both positive and negative sentiments. This is a possible cause of the findings not having a particular difference with the type of review video and the sentiment being either positive or
negative. Since there is no relationship between both, it is of no concern if the review video is sponsored or not when the viewer is likely to post a comment with a sentiment with the video on YouTube.

According to the fourth hypothesis, voluntary review videos on YouTube will lead to more positive commenting by the viewer than paid review videos on YouTube, whereby a higher brand attitude occurs. The analysis of the findings also do not support hypothesis 4. There is no mediation effect of self-commenting between the relationship of the type of review video and brand attitude. The main effects in hypothesis 2 and hypothesis 3 were rejected and only hypothesis 1 was supported, therefore no mediation effect of self-commenting on the relationship between the other two variables appears. The findings are not in line with prior research of Morency et al. (2011) and Dellarocas (2006) which assert that either experiencing a marketing stimuli or not would lead to differences of affecting the receiver. This research therefore contradicts the literature. Leaving a comment on YouTube does not influences the brand attitude when watching either a voluntary or paid review video. Therefore, this is possibly again in line with the previous point in the research of Kozinets et al. (2010), implying that both sentiments could result from an included marketing stimulus.

Both hypothesis 5 and hypothesis 6 analysed the interaction effect of reading comments written by others on the relationship between the type of review video and either the sentiment of self-commenting and brand attitude. Both hypotheses are rejected, showing no interaction effect. Therefore, the findings show that reading others’ comments after watching the type of review video has no influence on the brand attitude. The findings contradict prior research regarding social influence of others’ comments being crucial in the selection of a personal choice (Cambria et al., 2013). In the light of this research, others’ comments do not influence the sentiment of self-commenting, and brand attitude, in relationship with the type of review video. However, the findings seem to support the poor public image of YouTube comments where these are considered of little value (Schultes et al., 2013).

The seventh and final hypothesis introduces purchase intention into the framework. The hypothesis stated that there is a positive relation between brand attitude and purchase intention, in which the higher the brand attitude appears to be, the higher the intention to purchase will be. Based on previous research, the findings are similar with the expectations. When the brand attitude is higher, leaning towards more positivity, the intention to purchase also becomes higher. Therefore matching the literature in which was discussed that when affecting an individual’s attitude would lead to influencing their intention to purchase a brand. The significant effect also highlights and confirms that positive brand attitude leads to a higher purchase intention and vice versa for negative attitude leading towards a lowers purchase intention (Pope & Vegas, 2000). Specifically confirmed by this research, that through the video which was shown in the beginning, awareness was created towards the brand to
change brand attitude and thus leading to intention to purchase (Shabbir et al., 2009; Turney & Littman 2003). In light of this significant relationship, a second mediation model was constructed to discover if brand attitude can mediate the relationship the significant relationship between the manipulation check of perceived sponsorship and purchase intention. The findings showed that perceived sponsorship and brand attitude predict the intention to purchase.

According to the analysis of the additional findings, age influences self-commenting. This finding was aligned with prior research of Pennebaker, Mehl and Niederhoffer (2003), who argue that with increasing age, individuals use more positive sentiments in their wording and fewer negative sentimental words. Meanwhile, the findings of sex showing no significant effect on self-commenting contradicts the work by Lakoff (1975), who argued that there is a difference when looking at gender differences in language use. Women tend to be more considerate and positive in their emotions with their sentiment in their writing, whereas men used nearly four times the amount of swear and anger words. This was more recently confirmed by other researchers as well (Mehl, Pennebaker, Crow, Dabbs & Price, 2001; Mangold & Smith, 2011). Subsequently, being Indian or American had no significant effect on either variable. However, Lange (2008) did point out that culture might be a cause of difference in behaviour among participants who engage in YouTube discussions. This is not supported by the additional findings.

Furthermore, out of the three control variables tested for brand attitude in the additional findings, only sex has an interaction effect. The results hereby confirm the positive effect of gender on brand attitude in a study where clever advertising imagery was used. Women have a higher mean score than men for their attitude towards a brand (McDaniel & Kinney, 1998). However, this is not applicable for every brand. For example, when the brand advertises for violent video games, women have lower brand attitudes compared to men (Yoo, & Peña, 2011). Thus, differences due to the gender of an individual, must be explained in relation to the category in which the brand belongs. Age and nationality both did not have a significant effect on brand attitude.

Finally to conclude the findings, this research showed two interesting points. First, the sentiment of self-commenting on YouTube influences brand attitude positively. Also with the inclusion of the ELM there is a positive relation. And second, a higher brand attitude influences a higher intention to purchase a product or brand. Conversely, reading comments written by other users on YouTube do not influence the sentiment of self-commenting and attitude towards a brand, thus contradicting previous research discussed in the theoretical framework and as mentioned before, others’ comments are of little value (Schultes et al., 2013). Lastly, the addition of a marketing stimuli into a review video on YouTube is of no essence when looking at the sentiment of self-commenting and brand attitude.
5.1.1. Practical Implications

The aforementioned insights also contribute to the practice field of social media advertising. This research focused specifically on narrative advertising strategies applied in product reviews on YouTube. Digital and social media marketing should not be disregarded by companies who are applying advertising strategies to influence potential customers to buy their products. Even though the results showed no difference in the response towards using a marketing stimuli or not with a YouTube video, companies are aware that social media marketing is more accessible to a larger audience (Barnes & Hair, 2009). Moreover, YouTube has largely become an online destination for shared content originating from professional sources (Freeman & Chapman, 2007). Hence a first note which is important for practical implementation of marketing on social media platforms, sales numbers resulting from social media marketing are for instance easier to track than traditional marketing such as television or radio commercials (Wu, 2016; Morency et al., 2011). Subsequently, when looking at online consumer reviews, these are regarded as important for driving the actions of consumers. These reviews have the capability of influencing the decision-making process of consumers (Lee, Park & Han, 2007). Therefore using narrative advertising into YouTube review videos, transparency around disclosures is valuable for both consumers and companies.

According to this research, sentiment of self-commenting does influence the attitude towards the brand. When users post positive comments, it can lead towards a higher brand attitude. On the contrary, when users post negative comments, it can influence the brand attitude negatively. This point is not good for advertisers that use a marketing strategy into a YouTube video. Limiting the negative comments that users intend to write is favourable to influence the attitude towards a brand more positively. A negative attitude can affect the credibility of the information in a review (Dellarocas, 2006). Elaborating on this, consumers nowadays engage more easily in critical discussions on social media (Mangold & Faulds, 2009). Besides, YouTube allows users to engage in discussions, thus advertisers can benefit from paying attention to the comments and conversations consumers are having in relation to the brand or product.

5.2 Limitations

Most findings in current research do not confirm the expectations based on literature. Several limitations might be at cause to the findings that could not support prior research. These limitations may have limited current research in giving a more conclusive and generalizable answer to the research question.

The first limitation which became clear during the formulation of the research question and several hypotheses was the lack of sufficient prior research executed in the field of advertisement in online product reviewing videos. Most of the literature either focused on reviews in general (Li & Hitt,
2008; Morency et al., 2010; Ghose & Ipeirotis, 2011), advertisement in reviews (Kozinets et al., 2010; Hu et al., 2012) or branding on YouTube (Freeman Chapman, 2007; Pace, 2008; Smith et al., 2012; Chen, 2013). There was barely any research which linked these fields together, which would be interesting for this research, so that it could potentially contribute to related research. However, to support the research question and hypotheses this was inconvenient.

Secondly, searching for a useful video to use in this survey in order to get proper answers and responses while taking into account the research fields was a difficult task. For this survey a brand had to be found which was not subjected to differences in responses with sex, age or culture. As these demographics were not a part of the main research topics. There are gender gaps which are evident for online shopping. There are also significant gender differences in consumers’ perception of online consumer reviews (Bae & Lee, 2011; Mangold & Smith, 2011). Men for example buy more computer hardware or software and electronical devices, whereas women tend to buy more apparel and health and beauty products (Sebastianelli, Tamimi & Rajan, 2008). Current research had to take this into account to find a brand that would apply to an audience without being influenced by sex, age or cultural differences, while only searching within online product review videos on YouTube. This critical process took longer than anticipated.

A third limitation became visible after the survey was completed. It is difficult to monitor if a respondent has seen the video in its entirety from beginning till end. Both videos together were watched 458 times and the total of completed surveys was 412. This is an indication that all the respondents could have seen the whole video, but this is not possible to confirm. Only the time spend on a survey can be traced through the data and analysis in Qualtrics. The average duration spend on the survey is 17.48 minutes, which for this survey would be too long. Respondents could take a break during the survey. Also, according to a couple of responses by respondents who mailed after completing the survey, the duration time spend on a survey starts counting again from zero if returning to a new MTurk website page after accepting the hit to separately submit it in a different screen.

Another limitation which occurred during the analysis of the findings was the use of PROCESS (Hayes, 2013). Because in this research there were several conditions in which the respondents were randomized in, not every respondent endured the same steps and flow of the survey. Therefore, PROCESS could not include all cases in its analysis in SPSS for model 8. It would only carry out the analysis for the cases that endured all steps from beginning to end, including the ones exposed to the moderating variable of others’ comments.

5.3 Recommendations for Future Research

This research has created new openings for future research. For instance, this research can be applied to other brands and products such as beauty products or electronical goods. These two categories have the most online product review videos on YouTube. Advertisers who are trying to persuade potential
consumers into buying these products can use the research settings and apply it onto their brands and target group. This research only focused on travel bags, which is not a common search product for consumers when consulting online product reviews. Therefore, applying current research in relation to different brands and products would eliminate possible demographic differences.

A second recommendation according to this research would be to research beyond the platform of YouTube. Even though digital and social media marketing is becoming more important in this digital age, discussions also occur online when the source is traditional media such as the visual medium of television and film. The placement of products in movies for example has become an important element of consumer marketing programs, creating brand exposure (McKechnie & Zhou, 2003). It has been suggested that product placement also influences brand attitude (Morton & Friedman, 2002). On the extent to which this also lead to different sentiments in online commenting and discussions would be an appealing research aspect.
6. References


Appendix: Qualtrics Survey

Introduction

Dear participant,

You are invited to take part in a research about online consumer behavior. The purpose of this study is to understand the impact and use of YouTube on potential consumers. The following survey will take you about 10 minutes to fill out. In general, I want to inform you that your participation is voluntary and you are free to interrupt or stop at any point. Furthermore, you can be assured that I will use the material from the survey exclusively for my academic work and your data will be handled anonymously and confidentially. In case you have questions or remarks about the research and this survey, you can contact the researcher directly: 312546ab@student.eur.nl. By confirming that you have read and understood this brief introduction, your consent is sufficient and you are free to begin with the survey.

Thank you for your participation.

Voluntary Video First watch the following video completely. If the video does not appear on the screen, please use the following link https://youtu.be/STlkNc7b0DA
Sponsored Video  First watch the following video completely. If the video does not appear on the screen, please use the following link https://youtu.be/STlkNc7b0DA
POSSCOMM Read the following comments

Scott Bland 2 years ago
I just discovered your channel Sonia, and I’m really enjoying not only the content, but your great delivery - Thank You!!

Recently I’ve admitted to myself that I’m an over-packer. I always come home with so much stuff that I never wear, or didn’t need to wear, but did just because it was available.

I’m going to make an attempt to only fly with a carry-on, so I’ve been researching various luggage brands and packing solutions - your videos have really made this an even more enjoyable project.

Keep up the great work!!

-Scott
Show less
Reply • 2 🌟

Zulinet Pérez 3 years ago
I would absolutely LOVE these for my trip to Puerto Rico and my cruise this summer. Flying from Alaska takes a toll on the clothes. Hahaha! By the time I reach my destination it looks like the inside of my suitcase went through a hurricane. Hahaha! I would use these to divide my clothes for a day to day basis. Thank you for your videos!

Reply •

nowisgood4me 3 years ago
I’m going on a 1 month trip to Brazil this July, I think packing cubes are a really good idea to keep my stuff organized. Thank you for the review, I’m looking for soft and shapeless packing cubes, since I will only have one backpack with me on this trip. Maybe you could do a video on packing backpacks?

Reply •

Jenna Frist 3 years ago
I loved this and all your videos, they are helping me so much as I plan a vacation to France! :) I would use the cubes to pack under garments, swim suits, and workout clothes, and pajamas! :) 

Reply •

Anna Hartzel 3 years ago
I absolutely love your channel. So helpful :)! In small one, I would put accessories, under wear and socks or sanitary stuffs. In medium one, I would put Tops (T-shirts etc) and in large one, I would put bottoms. Putting dirty clothes or shoes in bag totally freak me out... I always have few plastic bags with me and put dirty stuffs in it so that way I can throw them away after I use.

Show less
Reply •
NEGCOMM Read the following comments

CandyFloss162010 2 years ago
I'm have been a bit disappointed with your channel recently. It has become more of a advertisement for products than anything else. I miss your helpful travel tips... :( 

Reply • 34 • like

heartslee 2 years ago
Aw I thot the same

Reply • 3 • like

PROductive BEAST 2 years ago
Uhhh ... I hate sell outs.

Reply •

WhoaNelly.Jake 2 years ago
Is there any way you could cut back on mentioning that people should subscribe? I've been subscribed for a while now, and it gets a little irritating hearing "don't forget to subscribe" and "you better subscribe" three times a video.

Reply •

33booyaka33 5 months ago
For being a "product review" video, it was total shit. You have a beautiful face though.

Reply • 1 • like

Joseph Kamel 2 years ago
Sonia, used to love your channel but the coolest travel tip are becoming to be websites and products adverts. Hope you get back to the travel advises and decrease the adds.

Reply • 4 • like
OC1 If you would write a comment on YouTube after watching the product review video, which of the following three would you choose?

OC2 And from these three comments?
And these three comments?

**OC3**

BA What is your opinion, after watching the product review video and reading the comments, on the brand 'Eagle Creek'?

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<th>2</th>
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<th>4</th>
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<td>Bad</td>
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<td>Unfavorable</td>
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<td>Unlikable</td>
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<td>Appealing</td>
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<td>Good</td>
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<td>Pleasant</td>
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<td>Favorable</td>
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<td>Likable</td>
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</table>
**PI** How much do you agree with the following statements?

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<thead>
<tr>
<th></th>
<th>Definitely not</th>
<th>Not</th>
<th>Don't know</th>
<th>Yes</th>
<th>Definitely yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I would like to try this product”</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>○</td>
</tr>
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<td>“I would purchase this product if I would see it online”</td>
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<td>○</td>
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<td>○</td>
</tr>
<tr>
<td>“I would actively seek out this product online in order to purchase it”</td>
<td>○</td>
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</tbody>
</table>
FQ Please answer these final questions.

Familiarity Were you familiar with the brand Eagle Creek?

- Yes
- No

Own EC Do you own an Eagle Creek product?

- Yes
- No

V or S video Was the YouTube reviewer sponsored by Eagle Creek?

- Yes
- No
- Don't remember
**Tone** What was the tone of the comments shown after the video?

- Positive
- Neutral
- Negative
- Don't remember

**Sex** What is your gender?

- Male
- Female

**Occ** What is your current occupation?

- Student
- Employed
- Retired
- Homemaker
- Other
Age What is your age?

What is your nationality

We thank you for your time spent taking this survey.

Your response has been recorded.