Product Advertising and Viral Stealth Marketing in Online Videos: A description and comparison of comments on YouTube

Purpose – In the context of social media marketing, so called Viral Stealth Videos (VSVs) often attract as much or even more attention than videos that directly advertise products (product advertising videos; PAVs). However, beyond this, the product or brand related impact of such videos is not so clear. In this context, this paper aims to investigate brand perception of PAVs and VSVs in YouTube.

Design/methodology/approach – The research design is based on an examination of comments of 6 VSVs and 6 PAVs on YouTube. Therefore, the content of 1,080 posts was analyzed to capture the topic, the attitude towards the video and the pragmatic intent of posts.

Findings – Results indicate that there are strong differences with regard to users´ perception of the two analyzed video type segments. The content of VSVs is clearly recognized as positive more often than the content of PAVs. In contrast, only PAVs evoke substantial brand awareness but receive rather mixed results with regards to brand assessment.

Research limitations/implications – As a whole, the study is widely descriptive and of explorative value. Nevertheless, the research design can be estimated as a first step to measure the brand related impact of online videos. Ideally, the data generated in the investigation should be combined with traffic and conversion data of the brands' web sites to get an encompassing picture of the marketing related impact of the investigated online videos.

Practical implications – Seen from a marketers´ perspective, one can recommend PAVs over VSVs as there are hardly any brand related impacts of VSVs visible in online communication. PAVs are perceived less positively but they are able to evoke brand awareness at least.

Originality/value – According to our knowledge this investigation is one of only a few studies that analyze real online communication in the context of video-based online marketing.

Keywords - Online videos , brand recognition, viral stealth marketing, video based online marketing, YouTube, product advertising, online marketing

1. Introduction

In March 2014, Wren, a woman´s clothing and accessories brand, published an online video 'First Kiss' which achieved 23 million views within three days (Visible Measures, 2014). In the video, strangers meet for the first time and are asked to kiss each other. The video can be categorized as a Viral Stealth Video (VSV), as brand promotion within the video is very subtle. The name of the company is mentioned only in the video credits and description. After the video was published, the publisher's site traffic and sales multiplied (Marshall, 2014). Also in March 2014, a product advertising video (PAV) 'Samsung Galaxy S5 - Official Introduction', directly promoting the smartphone S5, reached an audience of 23.8 million viewers within the first month (Visible Measures, 2014). Although very different with regard to product and brand promotion, both videos were very successful in reaching a large audience. This is the starting point of this study, which is concerned with the online perception of such popular videos and seeks to explore brand recognition as demonstrated in online comments. Therefore topics, attitudes towards the videos and the pragmatic intent of online comments on such videos will be investigated. The study is specifically focused on the issue of whether there are differences with regard to the distinct video types of VSVs and PAVs.

The paper is structured as follows. First, a short introduction to videos as a means of social media marketing is provided. Following that, there is an outline of content analysis-based research in this field. Next, the research question is delineated and the method is described. Subsequently, the results of the investigation are presented. Finally, the paper closes with a discussion.

2. Videos as a means of social media marketing

Online video marketing can be defined as presenting marketing related messages with the help of online videos on the publisher's own website, or websites of third parties. In comparison with other types of advertising, online videos exhibit attributes that make them particularly suitable for viral marketing. Video engages audiences differently to image and text (Appiah, 2006). Videos exhibit a wide variety of communication codes, encompassing verbal and non-verbal communication. The storyline-based communication in videos is more immediate and versatile (Nottingham, 2012). Consequently, videos are much more apt to evoke emotions or explore complex issues than other media.

With regards to promotion, interpersonal communication is believed to be more persuasive than unidirectional mass communication (Arndt, 1967). Thus social media (which allow users to share and emit information) provides, theoretically, ideal Word-of-Mouth (WOM) channels to distribute content. Recommendations in the form of likes or comments may have a positive impact on marketing. Negative perceptions and critical comments may also foster popularity but may lead to public outrage which is detrimental to the product and/or brand. In sum, promotional success and product or brand recognition primarily depends on the users´ reception of marketing messages and advertising materials. With relevance to this, results of an investigation by Huang *et al.* (2008) indicate that the attraction, quality, authenticity and authority of provided information are important factors for determining the WOM-related sharing probability. According to the work of Hsieh *et al*. (2012), humor and multimedia effects have positive influences on the attitude towards a received online video and also forwarding intentions. Contrastingly, Kaikati and Kaikati (2004) and Homer (2009) state that users are rather skeptical if they perceive published content to be transporting sales messages. For this reason, VSVs seem to be much more appropriate for social media marketing than PAVs. But is that really the case?

To measure the marketing related success of online videos one needs to get a picture of brand presence and awareness and also brand image and reputation. Quantitative measures and metrics, *e.g.* likes, shares, or number of comments, provide insights with regards to the popularity aspect of online videos. However, a large number of views, likes and comments are not sufficient indicators by which one can measure the success of a marketing campaign. To discover brand or product image-related effects one needs to investigate perception and communication on a deeper level. One way to investigate such impact is to analyze the content of the emerging online communication. This is the starting point of this research. This study aims to provide a picture of brand and/or product image-related aspects of videos which already are, according to quantitative metrics, very popular.

3. Content analysis-based research in social media marketing

In order to build a basis for the research design, a short outline of content analysis-based research in social media marketing will be provided. An overview of related work reveals that there are plentiful investigations in the wider field of social media marketing. Many investigations focus on Twitter and Facebook. However, content analysis-based research on YouTube is rather scarce. The following review of studies in the field delivers an orientation of the present research on this issue. Thereby, content analysis-based research in social media marketing can be roughly categorized into two main subject areas: research on brand communication (strategies and its effects) and studies that analyze the communication behavior of users. Both themes are relevant for this investigation and therefore pertinent studies are included. In addition, seen from a methodological perspective, current research can be categorized into studies that A) try to discover and infer the nature and function of communication artefacts (usually posts and comments), B) investigations that aim to reveal specific patterns of communication (processes and attributes), and C) studies that include and combine A and B. The following overview is structured according to the mentioned categories A-C.

A) Research focused on the nature and function of communication artefacts

As noted, research on Twitter is widespread. For example, Naaman *et al.* (2010) investigated communication patterns on Twitter to capture the different types of user activities. They categorized 3,379 tweets from 350 users and conclude that the most dominant categories are: 'Me now' (current state of the user), 'Statements and Random Thoughts', 'Opinions' and 'Information Sharing'.

Communication on Facebook is also often an object of investigation. Cvijikj and Michahelles (2011) conducted a study on the topics, categories and sentiment of 611 posts on a Facebook brand page. Each post was categorized to identify its key concepts. The following aspects were analyzed: topics within the posts, posts' intentions (referred in the paper as "actions") and sentiment of the content. Results indicate that product, sales and brand are the most important topics. Intentions were mainly suggestions, requests, expressing affect and status sharing. Complaints and critique were scarcely observed. Likewise, sentiment was predominantly positive. Topics and intentions were often correlated. Product requests and suggestions, and expressing affect and product were the most frequent topic-intent combinations. This study illustrates that by grasping and combining multiple categorizations it is possible to get deeper insights into various facets of online communication.

With regard to YouTube, Smith *et al.* (2012) examined brand-related user-generated content (UGC) across Twitter, Facebook and YouTube. 600 user-generated postings for two retail-apparel brands were analyzed. Analytical dimensions were built around the categories 'self-presentation', 'brand centrality', 'marketer directed communication', 'factual information' and 'brand sentiment'. Results showed differences between the two brands and also differences between the examined social media channels. 'Self-presentation' was most frequently observed on YouTube, whereas 'brand centrality' and 'marketer directed communication' was scarcely found on this channel, but were more frequent

on Twitter and Facebook. Interestingly, sentiment was very often positive on YouTube and rarely negative. In summation, YouTube can be seen as a special kind of social media network with different peculiarities of online communication in comparison to other channels.

Madden *et al*. (2013) conducted a content analysis of YouTube comments relying on an iterative approach. First, they derived categories based on the works of Jansen *et al*. (2009) and Park *et al*. (2008). They tested and refined the categories on subsets of a sample of 66,637 YouTube posts they collected beforehand. As a result, they constructed an elaborate categorization scheme consisting of 10 main and 58 sub-categories mapping communication on YouTube very specifically, capturing content related aspects (*e.g.* 'video content descriptions'), interactions (*e.g.* 'comments on other posts'), pragmatics (*e.g.* 'providing' or 'aiming for information') as well as sentiment towards videos and other postings. In addition, their tests revealed a high intercoder reliability score. This research provides a starting point on which more specific investigations on communication behavior on YouTube can build upon.

B) Research on patterns of communication

Krüger *et al.* (2012) investigated the brand communication of Adidas. A manual analysis of 500 tweets of stakeholders and 274 of Adidas revealed that business-to-stakeholder communication is rather one-sided, and that stakeholders do not report product flaws via this channel. It can be concluded that no significant exchange of communication between brand and stakeholders exist on this social media platform.

Stieglitz and Dang-Xuan (2013) investigated the relation between the sentiment and the scale of diffusion of tweets. An examination of 165,000 tweets showed that emotional tweets exhibit a higher retweet rate and also speed. Nagarajan *et al.* (2010) evaluated over 1,600,000 tweets concerning three different political elections. Combining statistical tweet properties with manual content analysis, they also observed a relationship between content type and retweet behavior. Popular tweets often provide some form of 'call to action', supporting the formation of a collective group identity or initiating crowdsourcing.

Siersdorfer *et al*. (2010) combined an automatic sentiment analysis of comments on YouTube with statistical data of user ratings of comments. They argue that there are indeed relations between topic, sentiment and ratings of posts. They show that there is a ranking between categories with regard to the frequency of positive and negative sentiments in posts. Comments related to the topic 'music' evoke the largest fraction of positive posts, also resulting in the highest grade of community acceptance as measured with comment rating scores. This means one has to keep in mind that user behavior is indeed dependent on the topic.

C) Studies combining research on the nature and function of communication and on patterns of communication

Jansen *et al*. (2009) examined brand recognition on Twitter with regard to brand mentions and sentiment. An automatic analysis of 149,472 tweets revealed that 20% of the tweets contained a statement with a brand-related sentiment, 50% of these showing a rather positive perception, and 33% with a negative sentiment. In addition, they classified 1,907 tweets manually. Five communication categories ('positive comments', 'negative comments', 'responses', 'questions', and 'answers to questions') explained 73.7% of all identified communication-related action-object pairs. The authors conclude that Twitter is a viable service to implement viral marketing campaigns as well as customer relationship management.

Said *et al*. (2014) examined the effects of feedback on buying behavior. They investigated 10,000 Facebook interactions (including photographs, comments and likes) on the Facebook page of Warby Parker to explore customers´ questions and conversations as they shop for eyeglass frames. The authors conclude that the Facebook page serves as a platform for self-expression and decision making as 68 out of 70 customers followed feedback on the Facebook site in their final product selection decision.

Mahoney *et al.* (2014, p. 1929) investigated 3,759 Facebook posts of six urban retail locations to examine the relation between the content of posts sent by retail location and engagement level of the customer. Manual coding resulted in four main themes of posts: 'information distribution', 'enquiry', 'directives' and 'opinion'. Furthermore, the authors state that there are different kinds of communication strategies for the six urban retail locations. All strategies include a strong focus on information distribution often supplemented with other themes. The diverse strategies resulted in different engagement levels. In addition, companies changed their strategies over time.

Shoham *et al*. (2013) investigated comments on a YouTube video with regard to active and interactive behavior. First, they examined thematic categories occurring in the 128 existing comments, inferring five main categories: 'relational reference', 'emotional reactions', 'repeating the show script', 'professional norm reference', and 'personal experience'. Following that, they conducted a social network analysis and demonstrate that there are rather few postings which relate to other users´ posts. They conclude that participation on YouTube corresponds rather to a general broadcasting than directed communication between participants, stating that *"an online affiliation network is nothing more than a crowded street where passersby may come across graffiti broadcasted in the 'shared domain'"* (Shoham *et al*., 2013, p. 3956). This paper is interesting because it explicitly illustrates that active participation on YouTube and possibly in social media in general cannot be automatically connected with the notion of an interactive community.

In summary, this short overview of content analysis-based research in social media delivers some interesting insights. First, the investigations illustrate that it could be worthwhile to consider the degree of relation between marketer-generated content, and the content and structure of users´ communication (Krüger *et al*., 2012; Jansen *et al*., 2009; Cvijikj and Michahelles, 2011). In addition, as Stieglitz and Dang-Xuan (2013) point out, emotional facets of communication can be predictive with regard to the reactions messages entail. Furthermore, investigations have considered different types of

communication activities, *e.g.* engagement, or those that result in real-world behavior (Said *et al*., 2014; Naaman *et al.*, 2010; Cvijikj and Michahelles, 2011; Mahoney *et al.*, 2014). With regard to different social media channels, research shows that communication on YouTube is different from other channels. It is probably more focused on self-presentation and more connected with a positive sentiment than communication on Facebook or Twitter (Smith *et al*., 2012). According to Shoham *et al*. (2013) it is also rather unconnected to other active users.

Seen from a methodological perspective content analysis-based research in social media marketing can roughly be categorized as follows. Studies that aim to infer the nature and function of communication artefacts (A) usually rely on a qualitative research approach in which inductive category development and manual coding are at the center of the research design. Investigations that are predominantly interested on patterns of communication (B) are primarily based on a quantitative research approach. Such studies usually test predefined hypotheses and employ automatic methods of analysis that are able to examine large samples. In addition, there is a significant amount of studies that include both perspectives and encompass or even triangulate qualitative and quantitative methods.

The investigation in this paper can be categorized into category A. The research interest is on the nature and function of comments on marketing videos on YouTube. Theoretically, one can also relate it to category C as the paper compares communication on PAVs with communication on VSVs.

Because of the limited number of studies focused on YouTube there are no established or standardized analytical approaches and schemes on which researchers could rely. Therefore, the research design in this study should be estimated as a testbed and thus the investigation has to be assessed as exploratory. The work of Madden *et al*. (2013) serves as a first orientation on which this investigation builds upon to measure content related aspects, types of interaction, sentiment, and pragmatics of user-generated communication on YouTube.

4. Research design

4.1 Research question

As noted in section 2, this study is concerned with the product and/or brand-related impact of popular marketing videos on YouTube. The research aims to provide a picture of brand presence and perception as it is visible and actively articulated by users in the video comments section on this particular social media channel. The opinions expressed in these comments do not necessarily represent the perception of all users on YouTube, including the vast majority of passive users. Nevertheless, these comments depict the ”public opinion” with regard to such marketing videos. A key issue of the research is whether there are differences with regard to the perception of PAVs and VSVs. Therefore, the study will investigate if highly popular marketer-generated videos build up and foster brand/product image and reputation if seen from a communication-oriented perspective. As mentioned in section 2, users are rather skeptical if they perceive content as transmitting sales messages, therefore it is interesting to see if VSVs are perceived more positively than PAVs. On the other hand, it is unclear whether VSVs – because of their viral nature – are even able to evoke and

stimulate brand image effects at all. To summarize, the research question has been formulated as follows: What is the brand perception of PAVs and VSVs on YouTube?

4.2 Sample selection

As aforementioned, investigating the perception of already popular YouTube videos is the goal of this research. The videos chosen for this research were not randomly selected, as the population of existing videos on YouTube is too large and inaccessible. Furthermore, the video segments (PAVs and VSVs) this study is concerned with cannot be automatically exploited. As a starting point to determine the videos that should be investigated data provided by two companies (Visible Measures and OpenSlate Studio) was used. Visible Measures and OpenSlate Studio are companies that provide video and campaign tracking services and regularly publish reports on rankings of successful branded YouTube videos and channels. In addition, statistical analysis provided by Visible Measure over a large range of branded online videos, indicate topical areas of successful videos. These are: "*humor", "celebrities & icons", "events & stunts", "product demo", "stealth", "short film", "seasonal"*, *"musical"*, *„spoof"* and *"animation"*. Originating from this provided data, the videos employed in this study were selected. Video selection criteria considered popularity and also topical variety within the most popular topical areas as mentioned above. As a result, 12 videos were chosen and divided into two segments: PAVs and VSVs. To ensure the selection of a representative range of videos, each group needed to cover different topical areas as mentioned above.

In order to generate the sample of comments, 1,440 comments (120 for each selected video) were manually saved during the time period between the 12th and 17th of June 2014. Only the current top comments and the related replies were saved, these are the comments which are displayed by default. In addition, all cookies were removed and no user was logged in. Of these 1,440 comments, 1,080 were analyzed in the final investigation. The remaining 360 comments served as a data pool for creating test data sets, which were used to develop the category system. The conducted sample contained videos of the following brands:

PAV: Adidas, Samsung, Nike, Volvo, Old Spice, Dove.

VSV: RedBull, GoPro, WREN, Disney, Delov Digital, Cardstore.

4.3 Coding scheme development

Coding scheme development was done by the first author of this paper and followed a two-step procedure: an inductive approach to achieve a first overview of the data set and a deductive method to extract defined elements of the text (Mayring, 2000). Figure 1 illustrates the sequential steps of this methodical approach.

-Take in Figure No. 1- (Figure title "Figure 1 Coding scheme development; modified scheme adapted from the step model of deductive category application (Mayring 2000)")

Initially, a set of 120 comments (10 for each video) was cited in a pilot study for inductive category development. The aim was to achieve a first overview of the data set. Comments were paraphrased, generalized and reduced (Mayring, 2000). As a result, twelve categories and ten subcategories emerged. It appears that every comment could be assigned to at least one thematic reference point: the content of the video (*e.g.* characters, the plot, music in the video, etc.), brand related topics (*e.g.* brand, product or campaign) or off-topic conversations (every comment that deviates from the aforementioned topics). In addition, it was found that the coding should indicate the context between an initial comment and the related answers.

All in all, the first coding scheme developed in the pilot study offers a very broad view of the data set. However, in the second step a deductive category application seemed necessary to limit and structure the categories and to capture those aspects of the posts, which are relevant to answer the research question. For that purpose, the goals of social media marketing on YouTube (*i.e.* brand recognition and brand reputation) needed to be incorporated into the analytical scheme.

Therefore, the comprehensive coding scheme developed by Madden *et al*. (2013) was utilized as a theoretical frame to define main and sub categories (deductive category development). Subsequently the coding scheme of Madden *et al*. (2013) was revised and adapted taking into account the results of the inductive pilot study and the goals of social media marketing on YouTube. The resulting scheme was further refined in three cycles of coding using the first test data set of 120 comments again. In a further step, the coding scheme was jointly discussed by the two coders who double coded the whole set of data later on. With regard to this, a second test data set of another 120 comments was coded by both coders and further adjustments of the coding scheme were made. It became apparent that the intercoder reliability of the test sample already reached a high score (average of the Kappa values over all categories: 0.71). Thus, the third available test dataset (of another 120 post) has not been used. As a result, the final coding scheme consists of three main and 21 subcategories. It is listed in table 1.

-Take in Table No. 1-

It is important to note that the subcategories of *topic* are not mutually exclusive but treated as feature-like attributes, *e.g*., a post's topic can include *video content, brand, other brand* at the same time. In addition, excluding the explicitly mentioned exceptions (*cf.* Table 1), subcategories of *pragmatic* are also not mutually exclusive but treated as feature-like attributes.

The first main category, *topic,* captures topical reference points of the posts and determines what the posts are talking about. *Video content* encompasses posts directly referring to video content such as actors and plots. *Brand* and *other brand* subcategories were used if a post makes a reference to products and/or brands. *Advertising* relates to posts which broaches the advertising related context of the video. *YouTube interaction* categorizes posts that cover possible actions on YouTube such as new ideas for videos, sharing, liking, reviewing videos etc. The *off-topic* and *non-categorizable* subcategories are self-explanatory.

The aim of the second main category, *pragmatic,* is to ascertain how people communicate. This includes specific aspects of information requests and provision, conversational aspects of communication and the evaluation of the videos and the posts of other users.

Informational aspects of posts were analyzed with the categories *questions*, *information provision*, *video recommendation*, and *link to user*. Posts containing questions were categorized as *containing questions*. Posts categorized as *information provision* provide explanations, facts or hints *etc*. and *video recommendation* collects pointers to other videos. *Link to user* was used if posts contained references to other users and supported the communication between them.

For conversational aspects *insult, joke* and *general conversation* were employed. *Insult* is used as a category if posts contained offending passages with regard to other users. *Joke* categorizes humorous posts. The subcategory *general conversation* encompasses other conversational aspects like personal information or non-topical reactions on other users´ posts, for example *"You´re like my sister"*, or *"Thanks everybody"*.

Users´ assessments of videos and posts of other users were captured within four subcategories: *Compliment*, *critique*, *approval* and *opposition*. *Compliment* marks positive statements with regard to one of the subcategories of topic. *Critique* records negative statements with regard to one of the subcategories of *topic*. *Compliment* and *critique* reflect a kind of traditional opinion mining on topics. Beyond that, *approval* and *opposition* are related to *compliments* and *critique* in other users' postings. *Approval* and *opposition* thereby reflect the development of the discussion which unfurls between the comments themselves. To illustrate an example of a compliment is the post "*Looking great! Can't wait to buy the phone come April.*" An example for *critique* is "*Designwise sam needs to be inspired frm apple n htc...*" Both posts relate directly to the video whereas the post *"I'm with you there" (approval)* and *"He only quoted the disadvantages without pointing out the advantages...and assumed that it is bad" (opposition)* relate to other users´ posts. Note, in a case like the last example an *opposition* may express a positive perception of the brand, but an *approval* of a *critique* corresponds to a negative perception of a brand or product.

As these assessments of *topic* are directly connected to the main research interest, data was aggregated from the categories *compliment*, *critique*, *approval* and *opposition* into a new main category, *sentiment,* to directly indicate if the assessment of *topic* is *positive, negative or mixed.* For that purpose, *compliments*, *approval* on *compliments* and *opposition* on *critique* were aggregated as *positive assessment*. *Negative assessment* is a combination of *critique*, *approval* on *critique* and *opposition* on *compliments*. *Mixed assessment* is a category used for posts containing *positive* as well as *negative assessments.* An example for a post categorized as *mixed assessment* is *"love it.Too good.only the back panel doesn't feel rich."*

To sum up, the coding scheme is constructed to record what is talked about (topic), to estimate salient pragmatic aspects of information processes and to gather conversational behavior.

4.4 Coding procedure

The sample set of the investigation (1,080 posts, 90 from each video) was coded by two researchers. The coding was executed from the 1st to the 8th of July 2014. The first author of this paper instructed a second coder with regard to the coding scheme. All posts were double coded. The average of the Kappa values over all categories reached a value of 0.77, which can be assessed as a high interrater reliability.

5. Analysis and results

The following analysis is structured as follows. First, an overview of the data set according to VSVs and PAVs segments is given, to provide insights into basic aspects of video perception and the resulting communication. On this basis, specific attributes and relations of brand perception are explored.

5.1 Overview

Table 2 shows the results of the categorization process as mean values in the percentage of all postings.

-Take in Table No. 2-

This overview shows that there are significant differences in 5 of the 22 subcategories. Four of these five subcategories (*video content, brand, other brand, advertising*) are part of the *topic* main category and one (*video recommendation*) is part of the *pragmatic* main category. That means substantial differences in communication with regard to the *topical* aspects of communication between PAVs and VSVs exist. In contrast to that, there are no or negligible discrepancies with regard to *pragmatic or sentiment* related aspects. For both video types, the largest fraction of communication *topics* focus is on the content of the videos (PAV 44.63%; VSVs 67.22%). For PAVs *brand* (27.41%), *other brand* (8.33%) are also of importance, but barely visible for VSVs. The advertising context is mentioned in 10.56% of all posts to PAVs and, again, much less frequent in posts to VSVs (1.3%). This indicates that communication on brand-related aspects is primarily visible on PAVs and scarcely detectable on VSVs. In addition, the advertising context of the videos is much more likely to be broached in communication on PAVs.

Concerning the main category *pragmatic,* the following insights can be discerned. With regard to information requests and provision, only minor differences exist. Although the differences on the category *video recommendation* reach a significant level, this category itself is not that important. In PAVs only 2.5% of all posts are categorized as *video recommendation*. In contrast to that, *link to user* can be found on every fourth to fifth post in both segments. *Questions* are asked on every seventh to eighth post. Information provision can be found in roughly 10% of all posts.

Looking at conversational aspects of communication, one can see that every seventh post contains elements of general conversation (e.g. *"I can't tell if puss in boots copied this or this copied puss in boots. Seriously though, did anyone else watch that puss in boots video that looked JUST LIKE THIS?")*. Jokes and insults occur rather infrequently. Again, there appear to be no significant differences between the two video type segments.

With respect to the assessments of videos and posts of other users, the overview of the data set shows widely similar patterns of communication for PAVs and VSVs. Every fourth to fifth post is categorized as containing a *compliment*. Critique is much less common, reaching a frequency of below 10% for both segments. With regard to the evaluation of posts of other users, *oppositions* are nearly twice as frequent as *approvals*. The aggregated perspective on the main category *sentiment* shows that topics are recognized primarily with a *positive assessment.* Roughly every third post is categorized this way. Every seventh post transmits a *negative assessment*. *Mixed assessments* rarely occur.

As a whole, it is evident that communication is topically focused on *video conten*t, and in the case of PAVs also on *brands*. With regard to *pragmatic* aspects, one finds that informational aspects are of importance, as is *general conversation*. *Sentiment* is primarily positive. These results are largely in conformance with Smith *et al*. (2012) and Shoham *et al*. (2013).

5.2 Brand perception

In reference to brand awareness, there is a strong difference between PAVs and VSVs. Whereas brands are recognized in every fourth post in discussions on PAVs, they are barely visible in comments on VSVs. Therefore, PAVs are much more able to raise brand awareness than VSVs. A look at Table 2 also reveals that this marketing related gain comes with a 'price'. PAVs also raise awareness for other brands and the advertising related context of the video as the following comment illustrates: "*Adidas has been not creative enough, Nike always comes up with amazing things, I won't be surprised if adidas saw Nike's hypervenom (animal theme) for them to make this"*. At first glance, both factors, raising awareness for other brands and awareness of the advertising related context, may be assessed as rather detrimental to marketing success. With regards to this, data collected with the *sentiment* category enables the analysis of users´ evaluation of brands and other brands (and also of *advertising*). For this purpose, the specified *topic* and *sentiment* data are correlated. The choice was made to include the *video content* subcategory, as it is the most important topic. Therefore, the correlation analysis encompasses exactly those categories in topic for which PAVs and VSVs are, according to the results overview, statistically different. Table 3 gives an overview of these *sentiment-topic* relations.

-Take in Table No. 3-

Table 3 shows an interesting picture. The evaluation of video *topic* is different for PAVs and VSVs. Concerning PAVs, *positive*, *negative* and *mixed* assessments on brands are roughly equipollent, largely canceling out each other. Astonishingly, for PAVs *advertising* is weakly correlated with a *positive*

assessment, which indicates that obvious marketing online videos are positively perceived by some users. On the other hand, *video content* is more strongly correlated with a positive *assessment* on VSVs than on PAVs. On the whole, it can be summarized that PAVs are greatly superior to VSVs in stimulating brand awareness. However, there is a caveat: video content assessment is much more positive for VSVs than for PAVs.

6. Discussion and further research

Based on this research, how can one estimate the results and methodology of this investigation? What may be its wider utility?

Overall, the study is widely descriptive and of only explorative value. At the same time, according to the authors' knowledge it is one of only a handful of studies that analyze real online communication in the context of video-based online marketing. Investigating online communication on a qualitative content analysis level allows for new insights with regard to brand-related impact of YouTube videos, which are difficult or not even possible to study in a different manner. The researchers conclude that this approach sets the stage for a new conception of the measurement of marketing success on YouTube. Quantitative approaches or statistical analyzes are still widely restricted to measuring aspects like popularity or the rate (speed) of dissemination and rather simple text analysis. Our qualitative approach shows more depth, and we are able to analyze what users are talking about, their aim, and their conversational behavior. Such a content-related perspective of the perception of marketing videos is not yet disseminated.

As the data shows, video recognition is primarily positive and corresponds with the results of Smith *et al.* (2012). The perspective of this study reveals that this positive recognition relates predominantly to the *video content,* and is much more pronounced with VSVs than PAVs. In contrast, only PAVs evoke substantial brand awareness, but receive rather mixed results with regards to the *sentiment* of brand recognition. In comments to PAVs *other brands* also receive a certain extent of awareness. However, as the recognition is not correlated with a *positive* or *negative assessment* one can assess these as being of rather neutral brand value. Surprisingly, recognition of the advertising context, which is observable only for PAVS, is weakly correlated with a *positive assessment*. This is in contrast to the views of Kaikati and Kaikati (2004) and Homer (2009) which state that users are rather skeptical if they perceive published content as transmitting sales messages. This is possibly indicating that YouTube videos are being assessed as an acceptable form of online advertising in contrast to ad banners which are often seen as annoying by users (Benway and Lane, 1998).

With regard to the pragmatic aspects of communication, it is observed that informational purposes are of significance, as well as *general conversation* and *links to users*. As *general conversation* and *links to users* indicate a certain culture of discussion, this study chooses not to follow the broadcasting and "crowded street" metaphor of Shoham *et al*. (2013).

Viewed from a marketer's perspective, this study seems to recommend the use of PAVs over VSVs, if the primary focus is on brand awareness and successful product marketing. On the one hand, results

show that VSVs are perceived more often with a *positive assessment* than PAVs. Nevertheless, there are few brand-related impacts of VSVs visible in online communication. PAVs are perceived less positively, but they are at least able to evoke brand awareness. In turn, this estimation contradicts the positive estimation of VSVs as reported by Marshall (2014) with regard to traffic numbers and conversion effects on a publisher´s website. However, it must be noted that this study lacks a clear comparison with the results of Marshall.

The authors estimate these results and the concurrent approach as a first step in providing a tool to measure the brand-related impact of online videos, not as the end of the discussion. Ideally, online communication, traffic and conversion data should be triangulated in order to achieve an encompassing picture of the marketing related impact of online videos. Future investigations should aim to include both kinds of data.

References

Appiah, O. (2006), "Rich Media, Poor Media: The Impact of Audio/Video vs. Text/Picture Testimonial Ads on Browsers' Evaluations of Commercial Web Sites and Online Products", *Journal of Current Issues & Research in Advertising* Vol. 28 No.1, pp. 73–86.

Arndt, J. (1967), "Role of Product-Related Conversations in the Diffusion of a New Product", *Journal of Marketing Research* Vol. 4 No.3, pp. 291–295.

Benway, J.P. and Lane, D. M. (1998), "Banner Blindness: Web Searchers Often Miss "Obvious" Links", *Internetworking* Vol. 1 No. 3.

Cvijikj, I. P. and Michahelles, F. (2011), "Understanding social media marketing: a case study on topics, categories and sentiment on a Facebook brand page", in *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments in Tampere, Finland, 2011,* MindTrek '11. ACM, New York, NY, pp. 175-182.

Homer, P. M. (2009), "Product Placements", *Journal of Advertising* Vol. 38 No. 3, pp. 21–32.

Hsieh, J.-K., Hsieh, Y.-C., and Tang, Y.-C. (2012), "Exploring the disseminating behaviors of eWOM marketing: persuasion in online video", *Electronic Commerce Research* Vol. 12 No. 2, pp. 201-224.

Huang, X., Liu, M., and Huang, M. (2008), "People as Transmitters: What Makes an Online Marketing Message Contagious?" in *Future Information Technology and Management Engineering,* FITME'08. IEEE, New York, pp. 441-444.

Jansen, B., Zhang, M., Sobel, K., and Chowdury, A. (2009), "Twitter power: Tweets as electronic word of mouth", *Journal of the American Society for Information Science and Technology* Vol. 60 No. 11, pp. 2169–2188.

Kaikati, A., and Kaikati, J. (2004), "Stealth Marketing: How to Reach Consumers Surreptitiously", *California Management Review* Vol. 46 No. 4, pp. 6–22.

Krüger, N.; Stieglitz, S. and Tobias, P. (2012), "Brand Communication In Twitter – A Case Study On Adidas", in *Proceedings of Pacific Asia Conference on Information Systems*, PACIS 2012, Paper 161, available at: http://aisel.aisnet.org/pacis2012/161 (accessed 6 October 2015).

Madden, A., Ruthven, I., and McMenemy, D. (2013), "A classification scheme for content analyses of YouTube video comments", *Journal of Documentation* Vol. 69 No. 5, pp. 693–714.

Mahoney, J., Lawson, S., and Stone, R. (2014), "'What do you think of the return of dungarees?': Social media interactions between retail locations and their customers", in *CHI'14 Extended Abstracts on Human Factors in Computing Systems*. ACM, New York, NY, pp. 1927-1932.

Marshall, C. (2014 April 11), "'First Kiss' Viral Video Increased Sales by 13,600%, Site Traffic by 14,000%", available at: http://www.reelseo.com/first-kiss-increased-sales-site-traffic/ (accessed 6 October 2015).

Mayring, P. (2000), "Qualitative Content Analysis", *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research* Vol. 1 No. 2, Art. 20. available at: http://nbn-resolving.de/urn:nbn:de:0114-fqs0002204 (accessed 6 October 2015).

Naaman, M., Boase, J., and Lai, C.-H. (2010), "Is it really about me? Message Content in Social Awareness Streams", in *Proceedings of the 2010 ACM Conference on Computer Supported Cooperative Work*, CSCW '10. ACM, New York NY, pp. 189-192.

Nagarajan, M., Purohit, H., and Sheth, A. P. (2010), "A Qualitative Examination of Topical Tweet and Retweet Practices", in *Proceedings of the Fourth International AAAI Conference on Weblogs and Social Media in Washington*. The AAAI Press, Menlo Park, CA, pp. 295-298.

Nottingham, P. (2012), "The Distilled Guide to Online Video Marketing", available at: https://www.distilled.net/training/video-marketing-guide/ (accessed 6 October 2015).

Park, J., Fukuhara, T., Ohmukai, I., Takeda, H., and Lee, S. (2008), "Web content summarization using social bookmarks. A new approach for social summarization", in *Proceedings of the 10th ACM Workshop on Web information and Data Management*. ACM, New York, NY, pp. 103-110.

Said, K., Burton, M. A., Hurst, A., and Kane, S. K. (2014), "Framing the conversation: the role of Facebook conversations in shopping for eyeglasses", in *Proceedings of the 17th ACM conference on computer supported cooperative work and social computing*. ACM, New York, NY, pp. 652-661.

Shoham, M. D., Arora, A. B., and Al-Busaidi, A. (2013), "Writing on the Wall: An Online "Community" of YouTube Patrons as Communication Network or Cyber-Graffiti?", in *System Sciences (HICSS), 2013, 46th Hawaii International Conference on System Sciences*. IEEE, pp. 3951-3960.

Siersdorfer, S., Chelaru, S., Nejdl, W., and Pedro, J. S. (2010), "How useful are your comments?: analyzing and predicting YouTube comments and comment ratings", in *Proceedings of the 19th international conference on World wide web.* ACM, New York, NY, pp. 891-900.

Smith, A. N., Fischer, E., and Yongjian, C. (2012), "How Does Brand-related User-generated Content Differ across YouTube, Facebook, and Twitter?" *Journal of Interactive Marketing* Vol. 26 No. 2, pp. 102–113.

Stieglitz, S., and Dang-Xuan, L. (2013), "Emotions and Information Diffusion in Social Media—Sentiment of Microblogs and Sharing Behavior", *Journal of Management Information Systems* Vol. 29 No. 4, pp. 217–248.

Visible Measures (2014), "The vizzies. All That's New in Branded Video", available at: http://www.visiblemeasures.com/category/research/ (accessed 6 October 2015).

Main category	Subcategory
Topic	*Video content*
	Brand
	Other Brand (Competitors)
	Advertising
	YouTube interaction
	Off-topic
	Non-categorisable
Pragmatic	*Question*
	Information provision
	Video recommendation
	Link to user
	Insult
	Joke
	General conversation
	Compliment (can not be categorized as *approval* at the same time)
	Critique (can not be categorized as *opposition* at the same time)
	Approval (can not be categorized as *compliment* at the same time)
	Opposition (can not be categorized as *critique* at the same time)
Sentiment	*Positive assessment*
	Negative assessment
	Mixed assessment

Table 1 Final coding scheme

		PAV	VSV	Significance
Topic	*Video content*	44.63	67.22	*
	Brand	27.41	2.78	*
	Other Brand	8.33	0.00	*
	Advertising	10.56	1.3	*
	YouTube interaction	15.74	19.81	
	Off-topic	17.96	18.15	
	Non-categorizable	7.78	6.30	
Pragmatic	*Question*	15.93	12.78	
	Information provision	11.85	10	
	Video recommendation	2.41	0.37	*
	Link to user	24.44	23.52	
	Insult	2.59	5.00	
	Joke	3.33	6.67	
	General conversation	17.59	15.37	
	Compliment	21.11	25.19	
	Critique	9.44	6.85	
	Approval	7.22	7.96	
	Opposition	12.78	15.93	
Sentiment	*Positive assessment*	32.78	39.26	
	Negative assessment	15.19	17.59	
	Mixed assessment	3.70	2.96	

Table 2 Overview of the data set (mean values in percent of all postings, significance values are computed with Kruskal-Wallis-Tests, *indicates a significance level of 0.05.)

		Positive assessment	*Negative assessment*	*Mixed assessment*
Product advertising video (PAV)	*Video content*	,159**	,015	,001
	Brand	,146**	,145**	,121**
	Other Brand	-,054	,040	,083
	Advertising	,197**	,056	,028
Viral stealth video (VSV)	*Video content*	,399**	,042	,029
	Brand	,095*	-,019	,103*
	Other Brand	-	-	-
	Advertising	,042	,076	-,020

Table 3 Correlation analysis (Spearman-Rho, two-sided, *indicates a significance level of 0.05, **indicates a significance level of 0.01)