YouTube Advertising: Exploring its Effectiveness

Abstract

Advertising on YouTube is becoming increasingly popular due to its large potential in engaging existing and new target audiences via highly interactive video advertisements. However, YouTube is criticised for providing mostly lower value user generated content. This leads to major concerns among marketers how resources can be allocated most efficiently across channels and how effective YouTube as an advertising channel is. The purpose of this study is to evaluate existing literature exploring the effectiveness of YouTube advertising. This research contributes to academic literature by compiling a set of measures to assess advertising effectiveness and identifying factors affecting it in the context of online video advertising. In order to identify relevant criteria and frameworks for evaluating advertising effectiveness in the context of YouTube video advertising, the characteristics of social media and online video advertising were analysed and the theoretical foundations of online advertising were established.

Keywords: YouTube, advertising effectiveness, social advertising, online video

1. Background to the research

Recently, a significant increase in online advertising expenditures was observable. In 2016, worldwide expenditures increased by 20.3 % compared to the previous year and reached an overall volume of $194.60 billion (eMarketer, 2016b). Following search engine advertising, display advertisements represent the second largest area within online advertising (Klapdor, 2013). Due to their continuously growing popularity, display advertisements on social network sites such as Facebook, YouTube and Twitter, so-called ‘social advertisements’, represent a substantial element of many organisations’ advertising strategy and accounted with $ 30.99 billion for 15.92 % of the global digital advertising expenses in 2016 (Statista,
2017). For forthcoming years, analysts predict a continuation of the trend with an increase of 26.3% in global spending on social advertisements (LePage, 2016).

Particularly popular venue for social advertising is the video sharing platform YouTube. YouTube is among the most visited websites worldwide and, after Facebook, the most popular social network (McGoogan, 2016). Having a large user base of over one billion active users, in a single day, almost five billion videos are viewed (YouTube, 2017). This social media platform offers a wide range of advertising formats. YouTube is considered as highly effective in terms of engaging existing audiences and reaching new audiences (Rohrs, 2014), building brand awareness and promoting products via advertising (Miller, 2011). A major form of advertising on YouTube are so-called ‘in-stream video advertisements’: audio-visual video advertisements placed within YouTube videos which are considered as particularly effective due to their high degree of attention demanded. As marketers are increasingly shifting budgets to YouTube, from more traditional channels such as television and print media, it is currently generating the largest share of online video advertisement revenue (IABUK, 2016). According to a study by Social Media Examiner (2017), 31% of the more than 5,700 marketers surveyed will increase their advertisement spending on YouTube. A study conducted by Google, the company owning the platform since 2006, even suggests that advertisers should allocate up to six times more budget to YouTube than they currently do to exploit its full potential (Sweney, 2016).

Along with the continuous increase of online advertising expenditures, the concerns about the effectiveness of these measures are growing. Marketers are pressured to prove the value of marketing activities and are required to allocate budgets as effectively as possible (Moorman, 2013). Although advertising on YouTube seems promising and is strongly promoted by Google, it is also criticised for providing mostly lower value user generated content (UGC)
and not being able to provide a top-quality entertainment context for advertisements as traditional channels do (Shields, 2016). Recently several large organisations such as AT&T, Volkswagen and L’Oréal have withdrawn their advertisements from YouTube as these appeared next to extremist or inappropriate video content which had a negative effect on the advertisements (List of Advertisers, 2017).

Social networking sites such as Facebook, Instagram, Pinterest, Twitter and Snapchat provide increasingly competing opportunities for online video advertisements (LePage, 2016). According to eMarketer (2016a), YouTube is currently able to maintain its market share but, in the future, will face a downward trend due to this competition from these current and upcoming types of online media. Online advertising is also often perceived as irritating (Ibrahim, 2013) and can lead to negative views towards the advertised brand (Smith, 2012). This refers especially to advertisements obstructing the execution of an intended task such as watching a video (Smith, 2012). The occurrence of this obstruction is particularly apparent on YouTube and Instagram platforms.

Considering these aspects leads to the questions whether YouTube is an effective means of online advertising and how its effectiveness can be examined. Furthermore, it is questionable if there are even negative aspects related to the use of YouTube advertising and whether marketers should rather invest into other channels of communication. The purpose of this study is to evaluate existing literature exploring the effectiveness of YouTube advertising. This research contributes to the academic literature by compiling a set of measures to assess advertising effectiveness and identifying factors affecting it within online advertising.

2. Exploring Online Advertising
Conventionally, advertising messages were delivered via traditional types of communication such as newspapers, direct mail, magazines, radio, cinema, outdoor and television (Yeshin, 2006). The term ‘online advertising’ refers to advertising that appears while consumers are browsing the internet (Kotler & Armstrong, 2016). Online advertising comprises a variety of different forms (Breuer, Brettel & Engelen, 2011). The most common forms of online advertising are summarised in the following sections.

Search engine advertising, often also referred to as pay-per-click, paid or sponsored search (Klapdor, 2013), describes the process of placing advertisements on web pages that show the results from search engine queries (Olbrich & Schultz, 2014). When a search query contains keywords an advertiser has bided on, the advertisement appears next to the organic search results. Advertisers are only charged when users click on advertisements and are forwarded to an advertiser’s website (Klapdor, 2013). In combination with search engine optimisation, search engine advertising represents the discipline of search engine marketing. With a share of over 45%, search engine advertising represents the largest proportion of spending towards online advertising (Klapdor, 2013).

Display advertisements represent the second largest group in online advertising spending (Klapdor, 2013) and can be defined as “the use of graphical or rich media ad units within a web page to achieve goals of delivering brand awareness, familiarity, favourability and purchase intent” (Chaffey & Ellis-Chadwick, 2016, p. 30). Banners, pop-ups and interstitials in different formats are placed on third-party websites and redirect users to an advertiser’s website when clicked (Jensen, 2008; Breuer et al., 2011). However, the perceived intrusiveness and overuse of online advertising leads to effects such as ‘banner blindness’ whereby consumers purposefully avoid looking at a banner advertisement and an increasing use of ad blockers (Smith, 2012; Truong & Simmons, 2010). These avoidance approaches
decrease the response rates of online advertising and thus its effectiveness (Van Doorn & Hoekstra, 2013).

E-Mail advertisements are mostly sent to current customers of an organisation or to consumers who subscribed to a mailing list (Breuer et al., 2011). The distinguishing characteristic between E-Mail advertising and junk E-Mails is that the consumer opted-in to receive the advertisements (Morimoto & Chang, 2006). E-Mail advertisements are particularly used for sales promotion and customer retention (Klapdor, 2013).

Chaffey and Ellis-Chadwick (2016) define affiliate marketing as “a commission-based arrangement where referring sites (publishers) receive a commission on sales or leads by merchants (retailers)” (p. 30). The commission can be a percentage of a product sale price or a fixed amount per sale (Chaffey & Ellis-Chadwick, 2016). Affiliate marketing has the potential to provide a win-win situation for both parties involved. Due to the commission-based model, advertisers can accurately predict the cost caused and affiliates can create revenue without inventory or infrastructure investments (Duffy, 2005).

Further forms of online advertisement are sponsorship, classified and directories, and social media advertising. Due to the significance of social media advertising within this exploration, it will be analysed in more detail at a later stage within this paper.

2.1 Benefits and Challenges of Online Advertising

Using online advertising options provides a variety of benefits to marketers in comparison to traditional advertising methods. Online advertising is considered to be more cost-efficient
Pricing models such as pay-per-click do not only enable a high degree of cost control, advertisers also only pay when a consumer has been actually engaged by an advertisement (Klapdor, 2013).

A further major advantage of online advertising is its high degree of interactivity and consumer engagement. Whereas the interaction between traditional media and consumers follows a one-way approach, digital media enables a two-way communication approach, as the consumer is actively seeking an information or experience (Chaffey & Ellis-Chadwick, 2016). Moreover, digital media is classified as a high-intensity medium meaning that an advertiser will have a high amount of an individual’s attention when a website is viewed (Chaffey & Ellis-Chadwick, 2016).

Online advertising enables marketers to provide highly personalised and contextualised messages (Truong et al., 2010). Through the collection of online consumer behaviour data, advertisements can be tailored to a consumer’s purchase behaviour, interests and location (Van Doorn & Hoekstra, 2013). Thus, advertisements with greater relevance for the consumer can be provided which has shown to result in increased purchase intentions (Goldfarb & Tucker, 2011).

Online advertising provides the opportunity of measuring the effectiveness of advertising efforts through web analytics (Chaffey & Ellis-Chadwick, 2016). Using tools such as Google Analytics, marketers can track the contribution of certain advertisements to sales and analyse consumer behaviour resulting in a higher level of effectiveness and accountability of advertisement efforts (Belch et al., 2012).

On the other side, the employment of online advertising techniques provides also challenges for marketers. Significant privacy concerns arose on user side through the collection and use
of personal data to provide personalised communications (Van Doorn & Hoekstra, 2013). According to Tucker (2011), these privacy concerns can lead to effects such as reactance, a motivational state in which the consumer resists an advertisement’s appeal and behaves in the opposite way as intended.

The increasing use of advertising blockers is also an example for how online advertising follows rather a consumer pull and control than a sponsor push approach (Huang, Su, Zhou & Liu, 2013). The high degree of control a user has regarding the exposure represents a further key challenge within online advertising.

Although web analytics provides significant opportunities, the measurement of effectiveness and return of investment of advertising efforts represents a major concern for marketers. According to Kotler & Armstrong (2016), it is difficult to define the impact of specific advertisements as the sales performance is affected by multiple factors such as product features, price and availability. Moriarty et al. (2014) argue that advertising effects tend to be delayed which makes it difficult to link a purchase that is made days, weeks or months later to a specific advertisement.

3. Characteristics of Social Media Advertising

According to Blackshaw and Nazaro (2004), social media encompasses a variety of sources of online information that are “created, initiated, circulated and used by consumers intent on educating each other about products, brands, services, personalities and issues” (p.2). Kaplan and Haenlein (2010) outline the importance of the Web 2.0 and user generated content as foundations of social media. Web 2.0 is described as a series of technological innovations, which facilitate aspects such as content creation, interoperability and interaction (Berthon, Pitt, Plangger & Shapiro, 2012). User generated content is defined as the entity of all ways
users interact with social media (Kaplan & Haenlein, 2010). To be considered as such, user generated content needs to fulfil the criteria of being published on a publicly accessible or a social networking site, having no commercial background and being created with a certain amount of creative effort (Kaplan & Haenlein, 2010).

Berthon et al. (2012) identified three major differences between traditional computer-mediated communications and social media. Besides greater accessibility beyond usage on desktops, social media enabled through its increased interaction and interactivity the move of the value production from organisations to consumers, which is accompanied by a power shift from organisations to consumers (Berthon et al., 2012).

Hurrle and Postatny (2015) state that social media affects all elements of the marketing mix. The element promotion is in particular affected by the opportunity of a continuous, direct customer dialogue with immediate feedback. Alhabash, Mundel and Hussain (2017) define advertising in the context of social media as “any piece of online content designed with a persuasive intent and/or distributed via a social media platform that enables internet users to access, share, engage with add to and co-create” (p. 286).

Social media advertising efforts can be divided into the fragments of earned, owned and paid media (Hurrle & Postatny, 2015). Earned media comprises instances of user engagement with content related to a specific brand or service through electronic Word-of-Mouth (eWOM) or user generated content. Owned media refers to the use of an organisation’s own platforms, for example, its corporate Facebook page, to disseminate content (Alhabash et al., 2017). Paid media applies to the process of paying social media platforms, such as Facebook, Twitter or YouTube, to reach customers through display or video advertisements, promoted content, applications and plug-ins (Tuten & Solomon, 2015).
Paid advertisements in social media can be targeted using geographic, demographic, psychographic and behavioural user data (Tuten & Solomon, 2015). In this context, the term ‘social advertisement’ emerged which refers to online display advertisements incorporating user data and enabling social interaction with the advertisement or landing page (Tuten & Solomon, 2015). Due to their high level of interactivity and customisation, social advertisements are considered as more effective than non-social ones (Pwc, 2010). However, this is contradicted by Charlesworth (2015) stating that the majority of social media advertisements are perceived as intrusive, useless or not noticed. Charlesworth (2015) claims that social media advertisements are the most ignored form of advertisements after online banner advertisements.

A further challenge for advertising on social media is represented by the versatility of platforms (Hanna, Rohm & Crittenden, 2011). Within the various platforms, Haenlein and Kaplan (2010) distinguish between collaborative projects, blogs, content communities, social networking sites, virtual game worlds and virtual social world. The wide array of platforms results for marketers in the challenge of choosing the appropriate platforms for the target market and messages to be communicated (Haenlein & Kaplan, 2010).

Within the pursuit of more effective advertising forms, static display advertisements were further developed into interactive audio-visual advertisements, enabling the use of online video advertisements (Belanche, Flavian & Perez-Rueda, 2017). Lee and Lee (2012) distinguish between two types of online video advertisements: (1) independently uploaded online video advertisements with playback control functions and (2) online video advertisements embedded in other online video clips without playback control functions. This research will focus on the second type of online video advertisements, referred to as in-stream advertisements.
According to Lee and Lee (2012) “video is the fastest growing content on the internet” (p. 1359). This is confirmed by the strongly increasing expenditures on online video advertisement (Li & Lo, 2015). Although online video advertisement targets similar sensory systems as traditional television advertising, it differs in its effectiveness due to aspects as the higher degree of attention demanded by the media environment (Li & Lo, 2015). Online video advertisements are considered as highly effective as they combine “the branding power of traditional broadcast advertising with the direct response power of the web” (Lee & Lee, 2012, p. 1359) which creates advertising content that is more compelling than other forms of online advertising.

4. YouTube as a Platform for Online Video Advertising

The placement of online video advertising varies across different positions within videos and across different platforms. In terms of platforms, online video advertising is mostly transmitted via online video sharing websites such as Vimeo, Yahoo Screen, Hulu, Vevo and Flickr enabling users to watch and share video content (Li & Lo, 2015). The video sharing platform YouTube is after Facebook and Google the most visited website worldwide (McGoogan, 2016) and generates the biggest share of online video advertising revenues (IABUK, 2016). Due to its large user base, YouTube provides significant opportunities to interact with existing audiences, reach new audiences (Rohrs, 2014), build brand awareness and promote products via advertising (Miller, 2011). The over one billion active users are highly engaged in liking, commenting, uploading and sharing videos on YouTube (Dehghani et al., 2016).
YouTube offers organisations a wide range of advertising opportunities, segmented into in-stream video and in-video advertisements (Dehghani et al., 2016). In-stream advertisements are integrated into the video and can be further distinguished by their position within the video: pre-roll advertisements are shown before the video, mid-roll advertisements during the video and post-roll advertisements are placed at the end of the video (Li & Lo, 2015). The purpose of in-stream advertisements is to attract attention by interrupting the video a user would like to watch. Thus, the main characteristic of in-stream advertisements is the difficulty to ignore those as it appears during the process of watching the intended video content (Li & Lo, 2015). However, advertisers can also choose whether the advertisement can be skipped after first five seconds of viewing to reduce the degree of intrusiveness (YouTube, 2012). In-video advertisements are less intrusive, mostly static overlay advertisements that appear on the bottom of the YouTube video player. If desired, the user can minimise or close these advertisements (Dehghani et al., 2016). For the different advertising formats, YouTube offers various pricing models based on measures such as impressions or video views, which enable a high degree of cost control and transparency (YouTube, 2012).

Advertisements on YouTube can be targeted by geographic and demographic criteria or via topics (YouTube, 2012). Due to the platform’s user demographics, YouTube advertising is considered as particular effective among younger target audiences. The majority of YouTube users is between 25 and 34 years old, followed by the age groups from 35 to 44 and 18 to 24 years (Blattberg, 2015). Regarding their educational background, YouTube users are more likely to have a college degree or a comparable qualification than the general population (Nielsen, 2016). In terms of geographic origin, the largest share of YouTube users is based in the United States of America, followed by Brazil, Russia, Japan, India, the United Kingdom, Germany, France, Mexico and Turkey (Statista, 2016). In terms of gender, males and females are equally active viewers on YouTube (Nielsen, 2016).
Due to its popularity and functionalities, advertisers divert increasingly television-advertising budgets to online video advertising on YouTube (Shields, 2016). According to a study by Social Media Examiner (2017), 31% of the more than 5,700 marketers surveyed will increase their advertisement spending on YouTube. However, YouTube is criticised for providing mostly lower value user generated content and not being able to provide a top-quality entertainment context for advertisements as traditional television (Shields, 2016). As the videos and the advertisement are brought together via an advertisement delivery network, advertisers cannot directly influence within which video the advertisement will appear (Krishnan & Sitamaran, 2013).

4.1 Evaluating Advertising Effectiveness

According to Wright-Isak, Farber and Horner (1997) advertising effectiveness is “concerned with making a tangible contribution to a company or brand” (as cited in Wells, 1997, p. 4), cumulative over time and affects attitudes, feelings and behaviours of the recipients. Thereby, Wright-Isak et al. (1997) highlight the difference between advertising effectiveness and advertising effects. The evaluation of advertising effects focuses on how specific elements within an advertisement influence viewers responses, often within a short period and experimental set-up. In contrast, the assessment of advertising effectiveness considers multiple exposures to advertisements over a longer time span in a natural, rather complex environment, which takes also the influence of other marketing activities and competitors into account (Wright-Isak et al., 1997).
Instead of giving formal definitions, most authors define advertising effectiveness by the means it is measured by. A rather traditional approach is to measure advertising effectiveness by financial means such as the development of sales and advertising return on investment (De Haan, Wiesel & Pauwels, 2016; Petgelova et al., 2010). According to Kotler and Armstrong (2016), sales and profit effects of advertising can be measured by comparing past sales and profits with past advertising expenditures. Besides that, experiments varying the amount of advertising expenditure in different market areas in order to measure the difference in sales and profit results can be conducted (Kotler & Armstrong, 2016). However, there are significant limitations to measuring advertising effectiveness solely by its sales impact. Kotler & Armstrong (2016) suggest, therefore, that marketers should evaluate advertising effectiveness from two perspectives. Besides sales and profit effects, communication effects should be considered. Evaluating an advertisement’s communication effects means to assess whether the intended message is well communicated by the advertisement and media (Kotler & Armstrong, 2016).

To assess an advertisement’s communication effects, multiple metrics can be applied. According to Lavrakas, Mane and Laszlo (2010), traditional measurements such as brand exposure, aided and unaided recall, purchase intention, brand image and propensity to purchase are still highly relevant and should be taken into account when assessing online advertising effectiveness. This builds upon previous findings by Pavlou and Stewart (2000), stating that traditional measures of advertising effectiveness remain relevant in the context of interactive advertisements as the consumers’ response is similar to traditional media. However, Pavlou and Stewart (2000) also emphasise the need of incorporating the consumers’ interaction with an advertisement when assessing the effectiveness of online advertising instead of merely assessing their response to it.
Considering this new paradigm, Martin-Santana and Beerli-Palacio (2012) distinguish between three types of measuring advertising effectiveness. Through the aspect of interactivity, the traditional dimensions of cognitive and affective measurements have been extended by conative measurements. According to Martin-Santana and Beerli-Palacio (2012), the most commonly used cognitive measurements are memory-based techniques such as aided and unaided brand recall and recognition. Affective measurements include aspects such as the liking and attitude towards an advertisement and the advertised brand (Martin-Santana & Beerli-Palacio, 2012). Within the advertising response model, Metha (1994) identified a positive relationship between the processing of an advertisement and the development of an attitude towards the advertised brand, which then influences the purchase interest and intention (Figure 1).

![Advertising response model](image-url)  

**Figure 1:** Advertising response model (adapted from Metha, 1994, p. 64)

This model is complemented by Hwang, Yoon and Park (2011) who found that the processing of an online advertisement influences the attitude towards the website, the advertised brand and the purchase intention (Illustrated in Figure 2).
The last set of metrics is represented by conative measurements, which emerged through the interactivity of online advertising. Martin-Santana and Beerli-Palacio (2012) state that the click-through rate (CTR) is the “most widely-used conative measurement of online effectiveness” (p. 423). Click-through occur when users click on an advertisement and are transferred to the advertiser’s website (Chatterjee, 2001). The click-through rate describes the ratio between the number of users who have seen an advertisement and the number of those who have clicked it (Rosenkrans, 2009). It is widely discussed whether click-through rate is an effective indicator for measuring online advertising effectiveness. Although it measures a direct response to the advertisement and is easily tracked, Chandon, Chtourou and Fortin (2003) argue that click-through rate measures only short-term effects and neglects the aspect that the advertisement can also have an impact on the user when it is not clicked on. Additionally, Drèze and Husscher (2003) emphasise that through ad blockers and other avoidance techniques, click-through rate has significantly declined and thus cannot be considered as a reliable measurement of advertising effectiveness anymore. As a further conative measurement, Martin-Santana and Beerli-Palacio (2012) suggest purchase intention, which describes an individual’s likelihood of “buying or trying the product in the near future as a result of exposure to the advertisement” (p. 424).
The previously presented measurements have been examined within the context of online advertising, however, various authors such as Martin-Santana and Beerli-Palacio (2012) and Pavlou and Stewart (2000) considered banner advertisements as the main form of online advertising. Although banner advertisement metrics are applicable to assess the effectiveness of YouTube advertising, the specific characteristics of online video advertisements require the addition of further metrics.

Analysing 362 million video views including 257 million advertisements from 33 video providers, Krishnan and Sitaraman (2013) conducted one of the first quantitative studies regarding the effectiveness of YouTube advertising and defined specific metrics for the effectiveness of online video advertising. The advertisement completion rate, describing the percentage of advertisements that has been completely watched, is an important measure of online video advertising effectiveness (Krishnan & Sitaraman, 2013). Related to this is the advertisement abandonment rate, measuring the percentage of viewers who only watched a fraction of the advertisement. The goal of any advertising should be to minimise the abandonment rate and maximise the completion rate (Krishnan & Sitaraman, 2013). With the advertising acceptance rate, Belanche et al. (2017) introduced within their quantitative study a complementary measurement of online video advertising effectiveness. The advertising acceptance rate describes the ratio between users watching an advertisement and those abandoning the advertisement. Advertising acceptance is often measured by the time users spend watching the advertisement (Belanche et al., 2017).

Rosenkrans (2009) and Belanche et al. (2017) claim that whether an advertising can be considered as effective depends on its specific objective. Due to the strong dependence of the applicable measurement methods on the objective of the campaign and advertisement, no superior measurement method has been identified (Martin-Santana & Beerli-Palacio, 2012).
According to Kotler and Armstrong (2016) advertising objectives can be segmented into three categories, characterised by their primary purpose of being either informing, persuading or reminding. More detailed description of advertising objectives is available in Table 1.

Table 1: Possible advertising objectives (adapted from Kotler & Armstrong, 2016, p. 475)

<table>
<thead>
<tr>
<th>Informative Advertising</th>
<th>Persuasive Advertising</th>
<th>Reminder Advertising</th>
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<tr>
<td>• Communicating customer value</td>
<td>• Building brand preference</td>
<td>• Maintaining customer relationships</td>
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<tr>
<td>• Building a brand and company image</td>
<td>• Encouraging switching to a brand</td>
<td>• Reminding consumers that the product may be needed in the near future</td>
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<tr>
<td>• Telling the market about a new product</td>
<td>• Changing consumer perceptions of product value</td>
<td>• Reminding consumers where to buy the product</td>
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<tr>
<td>• Explaining how a product works</td>
<td>• Persuading consumers to purchase now</td>
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<tr>
<td>• Suggesting new uses for a product</td>
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<tr>
<td>Informing the market of a price change</td>
<td>Creating consumer engagement</td>
<td>Keeping the brand in customer’s mind</td>
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<tr>
<td>Describing available services and support</td>
<td>Building brand community</td>
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<td>Correcting false impressions</td>
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### 4.2 Factors Influencing Advertising Effectiveness

Despite elaborating the measures to assess advertising effectiveness, multiple studies have investigated the aspects that influence the effectiveness of online advertising. Many variables such as the level of engagement provided by an advertisement (Calder, Malthouse & Schaedel, 2009), the frequency of advertising exposure (Broussard, 2000) and the advertisement design have been considered (Robinson, Wysocka & Hand, 2007; Martin-Santana & Beerli-Palacio, 2012). However, the afore-mentioned studies focused predominantly on banner advertisements and did not consider other forms of online advertising such as online video advertising. In the following, studies considering the interactive and audio-visual characteristics of online video advertising will be further discussed.
Several studies investigated the impact of the format of the advertisement on its effectiveness. An important aspect of an online video advertisement’s format is its length. YouTube offers in-stream advertisements at lengths of 15, 30 and 60 seconds or longer (YouTube, 2012). Li & Lo (2015) found that the longer an online video advertisement is, the higher is the likelihood of the advertised brand being recognised. However, Krishnan and Sitaraman (2013) showed that an increased length leads to decreasing completion rates and, thus, consider advertisements longer than 30 seconds as less effective.

An online video advertisement’s position affects its effectiveness. Krishnan and Sitaraman (2013) found that mid-roll advertisements have higher completion rates than pre- and post-roll advertisements as viewers are less engaged in the beginning and at the end of the video. However, mid-roll advertisements are also perceived as most intrusive as they interrupt the viewer whilst watching the video (Li & Lo, 2015). Furthermore, it is also relevant whether an advertisement is placed within a long video or a short video. Advertisements within longer videos have shown to have higher completion rates than those placed within short videos (Krishnan & Sitaraman, 2013).

Belanche et al. (2017) and Li and Lo (2015) analysed the effect of context congruency. Context congruence refers to the degree of similarity between the video and the advertisement content (Belanche et al., 2017). According to Weber’s law, stimuli that differ from other stimuli are more likely to be noticed by consumers (Solomon, 2013). It is assumed that through the more differing stimuli when using incongruent advertisements, more internal processing is activated and thus incongruent advertisements are remembered better (Feltham & Arnold, 1994). In contrast, other authors argue that advertising messages within congruent contexts are more effective as the information is processed more intensely and positively and thus the congruency favourably influences the evaluation of the advertisement and attitude.
towards the brand (Belanche et al., 2017). Li and Lo (2015) analysed within a quantitative study incorporating a large sample of Chinese students the dependence of context congruence and advertisement position on brand recognition. Findings included that for pre- and post-roll advertisements the brand recognition was stronger in an incongruent context than in a congruent context. Although mid-roll advertisements were overall more effective in creating brand recognition, mid-roll advertisements placed within a congruent context did not significantly enhance brand recognition (Li & Lo, 2015). Within incongruent context, Li and Lo (2015) suggest the use of post-roll formats as users have specific objectives when watching a video and might be more likely to disengage when processing incongruent information. In contrast, Belanche et al. (2017) investigated the impact of congruence on highly and lowly arousing video advertisements. It was found that highly arousing advertisements perform better in a congruent context in terms of advertising acceptance and attitude towards the advertisement and brand than in an incongruent context. However, highly arousing advertisements should not be placed within an incongruent context, as they do not match with the viewer’s expectations and readiness for processing, and thus influence advertising effectiveness negatively (Belanche et al., 2017). Placing low-arousal advertisements in congruent and incongruent contexts did not have significantly different effects on the advertising effectiveness (Belanche et al., 2017).

Further factors affecting an online video advertisement’s effectiveness are the level of control users receive over advertisements and the liveliness of the content (Belanche et al., 2017). These metrics consist of a range of cognitive, affective and conative measures. Factors that influence effectiveness of advertising include several measures. Table 2 summarises the previously listed metrics and the factors influencing advertising effectiveness.
Table 2: Measures to assess and factors influencing advertising effectiveness

<table>
<thead>
<tr>
<th>Measures of advertising effectiveness</th>
<th>Factors influencing effectiveness</th>
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<tr>
<td>• Cognitive</td>
<td>• Length of advertisement</td>
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<tr>
<td>• Aided and unaided recall</td>
<td>• Position of advertisement</td>
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<tr>
<td>• Brand recognition</td>
<td>(pre-, mid-, post-roll</td>
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<tr>
<td>• Affective</td>
<td>advertisements)</td>
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<tr>
<td>• Liking and attitude</td>
<td>• Position of advertisement</td>
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<tr>
<td>towards advertisements</td>
<td>in long form videos vs. short</td>
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<tr>
<td>• Liking and attitude</td>
<td>form videos</td>
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<tr>
<td>towards advertised brand</td>
<td>• Context congruency</td>
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<tr>
<td>• Conative</td>
<td>• Product involvement</td>
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<tr>
<td>• CTR</td>
<td>• Liveliness of content</td>
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<tr>
<td>• Purchase Intention</td>
<td>• Level of control user receives</td>
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<td>• Advertisement completion rate</td>
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<td>• Advertisement abandonment rate</td>
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<td>• Advertising acceptance rate</td>
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5. Conclusion
Within this paper, the areas of online, social media and online video advertising were introduced, explored and major challenges discussed. Particular challenges within online advertising are represented by the perceived intrusiveness and overuse of online advertisements, leading to effects such as banner blindness and increasing use of ad blockers and other avoidance techniques. Social media advertisement is considered as more effective than other forms of online advertisement due to the high degree of interaction and personalisation it allows. However, social media advertisements are after online banner advertisements the most ignored form of advertisement. A continuously growing form of social media advertisement is online video advertising on social video sharing platforms.

YouTube is thereby the most commonly used platform and generates the biggest share of online video advertising revenues. The versatility of social platforms and the increasing adaption of online video advertising services from other social platforms lead to the question how effective YouTube as an advertising tool is.

The main aim of the work was to identify theories, frameworks and current research to define and evaluate advertising effectiveness in the context of online video advertising on YouTube. Although formal definitions for advertising effectiveness exist, it is defined by the means it is measured by. As measuring advertising effectiveness by sales impact is limited, advertising effectiveness is widely measured by communication effects. Considering the specific attributes of online video advertising such as its interactivity, cognitive, affective and conative measures were identified to measure the effectiveness of online video advertising. The applicability of measures depends thereby on the specific objective of the campaign. Besides elaborating measures for the effectiveness of online video advertising, previous studies on YouTube advertising focused on the factors influencing advertising effectiveness. The studies of Krishnan and Sitaraman (2013), Li and Lo (2015) and Belanche et al. (2017)
are considered as most relevant. Attributes of the advertisement such as its length and position, context congruity and product involvement are particularly important for online video advertising effectiveness.

This research contributes to academic literature by compiling a set of measures to assess advertising effectiveness and identifying factors affecting it in the context of online video advertising. In order to identify relevant criteria and frameworks for evaluating advertising effectiveness in the context of YouTube video advertising, the characteristics of social media and online video advertising were analysed and the theoretical foundations of online advertising were established. As major differences to traditional media, the high degree of interactivity, personalisation and demand for attention were identified. Measurements beyond cognitive and affective measures needed to be applied to evaluate the effectiveness of YouTube advertising. As stated by Pavlou and Stewart (2000) and Lavrakas et al. (2010), these traditional measurements are still relevant to assess the effectiveness of interactive advertisements as the consumers’ response is similar as to traditional media. Thus, Metha’s (1994) advertising response model and the research model by Hwang et al. (2011) were considered as highly relevant for this research. The models incorporate the aspects of the development of an attitude towards the advertisement or the website through advertisement processing. This perception then influences the attitude towards the brand and the purchase intention. The traditional measurements of advertising effectiveness have been extended by conative measurements which reflect the interactivity of modern online advertising. In addition to relevant theoretical frameworks, also several factors influencing advertising effectiveness were identified. In regard to YouTube, the attributes of the advertisement and the video it is placed in were considered particularly.
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