# GRA 19502

Master Thesis

The digital transformation of video advertising: A study of how online video advertising affects brand recall

Start: 01.12.2016 09.00

Finish: 16.01.2017 12.00

Preliminary Thesis

# - The digital transformation of video advertising: A study of how online video advertising affects brand recall -

Hand-in date:
16.01.2017

Campus:
BI Oslo

Examination code and name:
**GRA 19502** Preliminary Thesis Report

Programme:
Master of Science in Strategic Marketing Management

**Content**

# 1. Introduction

In recent years, online video advertising has become a large player within the industry. Digital video advertising spending in the United States is projected to reach 9.15 billion U.S. dollars in 2017 while the number of digital video viewers in the United States will increase to 232.1 million users in 2020, from 213.2 million in 2013 (Statista, 2017). A study from 2014 found that 78.4 percent of U.S. Internet users watched online video content, whereas in European countries such as Spain the amount of Internet users watching said content was 92 percent, compared to 91 percent in Italy and 79.9 percent in the United Kingdom (Statista, 2017). Despite its widespread adoption, the question of what effects online video advertising has on the viewer is one that is still being explored. One of the aspects to this question is how this type of advertising affects brand recall. Due to the current transition of television from a traditional to a digital platform, exposure to video advertising is changing as a result of new viewing behaviors. Therefore, the way consumers register online video ads is an ongoing subject of research. Another dimension to this question is that online video ads come with different levels of interactivity across platforms. One of them being skippable and non-skippable ads, prominently featured in video platforms with short-form content, such as YouTube. However, when it comes to video platforms with long-form content, such as streaming websites, the consumer is forced to watch the ad (i.e. non-skippable). For advertisers, it would be interesting to know the kind of impact that these different formats have on the consumer, and whether commercial ads in this format make economical sense for the brand. In this paper, we would like to research and analyze these factors in order to contribute to the academic findings in this field and give companies insight into consumer behavior within online video advertising.

# 2. Theoretical background and research question

*Online video platforms*

Online video platforms are growing and more users are using the Internet to watch video content. There are different types of online video platforms and Cha (2013) differentiates between video-sharing websites, such as YouTube, and Television-network sites such as Hulu and CNN.com. Cha (2013) found that time spent using the Internet to watch video content on video-sharing websites (e.g. YouTube) reduced the time spent watching television. However, users who spent their time watching video content on television-network sites online (e.g. Hulu) did not reduce their time watching television. Cha (2013) explains this by users spending time on television-network sites enjoy the content displayed both online and on television, whereas people spending their time to watch video-sharing websites do not have the same affinity towards watching TV. The motivation and needs satisfied by video-sharing websites are different than those from television network sites. This study shows that there are potentially different motivations and behaviors concerning the watching of online video content. This could potentially have an effect on how users react towards online advertising on the different online video platforms, and how users recall the advertisement, which we will investigate in this study.

*Ad placements in online video platforms*

Brechman et al. (2016) describe three types of video-advertising placements – before the content, during, or after the video content. Advertising before the content is commonly used on YouTube. Whereas often in half-hour or longer programs, advertisements are placed during the video content, where one advertisement is placed in each break. The advantage for advertisers of one spot advertisement throughout the video content is that they are able to expose the audience repeatedly to it.

A study by Loughney et al. (2008) examined ABC.com Full Episode player, a free streaming platform with advertising. An hour-long episode would have an advertisement for a brand, presented four times in four short commercial breaks. In their study, they found that this exclusive advertiser, using repeated small

advertising breaks was as effective as traditional television advertising, and was not perceived as too intrusive.

Comparing the different types of online video advertising placements amongst each other, Bellman et al. (2012) found that there was no significant difference in perceived intrusiveness between advertisements before or during the video content. However, advertising during the video content was seen to be more effective in terms of brand recall, compared to advertising in the beginning of video content. Li and Lo (2015) explain this using the "attention spillover" effect that occurs during a program onto the advertisement. This is an effect we would like to replicate within our study and examine if we get similar outcomes.

According to advertising theory on traditional television content, the more advertisements shown, the harder it is to remember those advertisements (Hammer et al., 2009). This is explained by two factors. Firstly disengagement takes place during commercial breaks (Burke & Srull, 1988), which can lead to fast-forwarding through advertising breaks (Teixeira, 2012) or leaving the room during the breaks (Danaher, 1995). The showing of only one commercial has a positive effect on memory retrieval, and repetition of said commercial has a positive effect on recall (Anderson et al., 1998). The appearance of only one brand increases the chance of recall, since the brands are not competing for attention (Singh et al., 1994). However, there are limits to how effective repetitions are, since this can lead to an increase in perceived intrusiveness, thus having negative effects on advertising liking and persuasiveness (van Reijmersdal et al., 2010). It will be interesting to take a closer look at these effects and replicate them in an online video setting. Something that has not been closer studied is the effects of several different brands advertising throughout the video content. The study by Loughney et al. (2008) was done only using the same brand for the advertisements. In our study we would like to look at effects of different ads (brands) being displayed, and what effect this has on brand recall.

### *Skippable vs. non-skippable ads on YouTube*

YouTube is the most popular online video community in the world with more than a billion users (YouTube, 2017). Video advertising is an essential part of Google's monetization model for YouTube. Online video advertising on YouTube

comes in different formats, and one of them is the in-stream video advertising, which is a short video, played prior to a video selected by the user. In 2010, Google compared skippable in-stream advertisements on YouTube to non-skippable in-stream advertisements. They did this based on the propensity to search for terms related to the content of the in-stream advertisements. They found that skippable video advertisements might be as effective as non-skippable advertisements. In addition to that, they found that viewers preferred skippable advertisements. (Pashkevich et al., 2012) This way user satisfaction with YouTube could be improved, and the negative consequences of advertisements could be reduced. This led to consequences such as less users leaving the site due to the advertisement, and users returning more frequently, due to the ability to skip the advertisement. Engagement was measured based on subsequent Google search, which might not reflect the actual advertising effectiveness. Looking more closely at the effects of skippable vs. non-skippable on brand recall, rather than just user engagement will allow us to make more conclusions useful for advertisers about the effectiveness of in-stream online video advertisements on YouTube. A focus on brand recall, rather than evaluation of subsequent search behavior, will give us a better understanding of whether the user registered the in-stream ad.

### Research question

Building on relevant literature surrounding this topic, we identified two elements of online video advertising that require further research. We would like to study how online video advertising across different platforms (short form vs. long form content) and ad formats (i.e. skippable vs. non-skippable) affects brand recall. We hereby focus on YouTube and an online video streaming platform from TV3. Getting a better understanding of the way these factors can impact consumer behavior will give us valuable insights that companies could use in order to improve their current use of online video advertising. Therefore, we formulate our research question as follows: *What are the effects of online video advertising on brand recall across different platforms (short form vs. long form content) and ad formats (skippable vs. non-skippable)?* Based on our research question, we propose the following model:
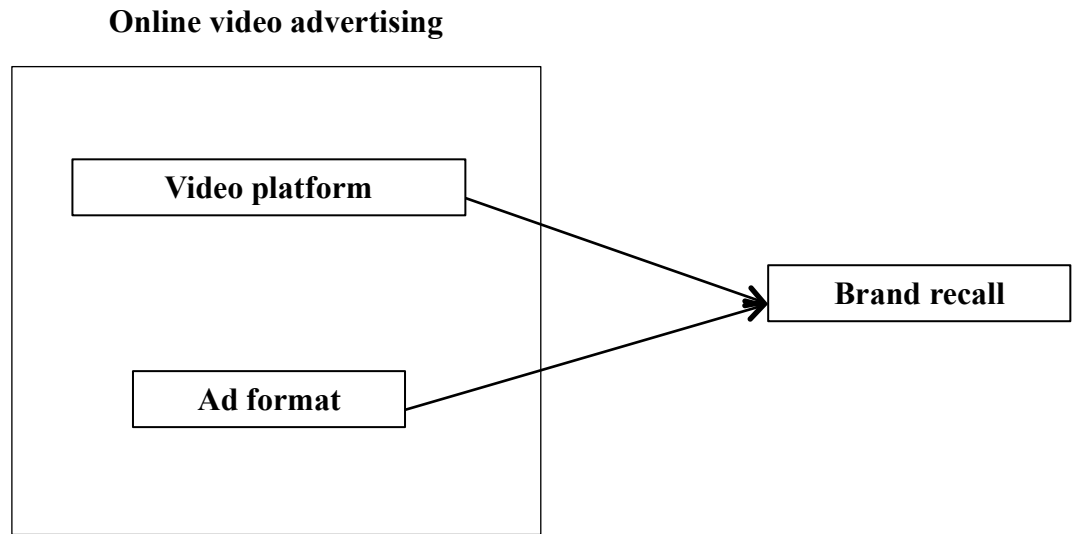
**Online video advertising**



Fig. 1: Conceptual model (DV: Brand recall)

# 3. Methodology

For our research method, we propose to start with a linear regression analysis using existing data around online video advertising and its demographics in order to determine what factors may affect the way consumers react to it. The explanatory variables included in this analysis are age, gender, ad format, and video platform. Dummy variables will be created for "ad format" (i.e. 1 = skippable, 0 = non-skippable) and "video platform" (i.e. 1 = YouTube, 0 = TV3's streaming platform). Since ads on streaming platforms are exclusively non-skippable, we have to consider this restriction in the interaction between these two variables. Our dependent variable for this analysis will be the percentage of video seen by the person exposed to the advertisement, which will be used as an indicator of how receptive the consumer was to the ad in question. These results will give us insight into the kind of current consumer behavior surrounding online video advertising, which will help us in designing the second part of our methodology. Our linear regression model is defined as follows:

$$Y = Percentage\ of\ video\ seen\ = \alpha + \beta_1 * age + \beta_2 * gender + \beta_3 * ad\ format + \beta_4 * video\ platform$$

$$H_0: \ \beta_1 = \beta_2 = \ldots = \beta_k = 0$$

$$H_1: \ \beta_j \neq 0 \ for \ at \ least \ one \ j$$

After this regression analysis, we intend to perform two studies in order to determine the effects of different online video platforms (short form vs. long form content) and ad formats (skippable vs. non-skippable) on brand recall. In study 1, we compare participants' reactions to non-skippable ads on TV3's streaming platform, Viafree, against non-skippable ads on YouTube. In study 2, we analyze their reactions on the same platform (i.e. YouTube) but different ad formats (i.e. skippable and non-skippable). Our sample will consist of 60 BI Norwegian Business School MSc students between ages 18-29, which will be divided equally between the two studies. The reasoning behind choosing a sample group comprised of college students is because about 76% of young Internet users (ages 18 to 29) view or download online videos, being the largest group to access this type of content (Madden, 2007). This means that they often are exposed to online video advertising, increasing the chances of natural behavior in our two studies. Moreover, the fact that they all attend the same university simplifies the process of recruiting participants. Finally, our subjects will be rewarded with giveaways for participating in our studies.

The purpose of study 1 is to determine the effect of online video advertising on brand recall using different platforms with the same ad format. In order to test this effect, we will ask participants in a computer lab setting to choose from one of two lists of different videos/shows on either Viafree or YouTube, which will include different video ads. In order to ensure that we have a balanced distribution of exposure to the two video platforms, we will divide the subjects into two groups: the list of choices for group 1 will be YouTube content and the one for group 2 will be Viafree content. Participants will then watch the content of their choice in a 30-minute session, which will end with a Qualtrics survey featuring questions about both the videos they watched and the ads they were exposed to (e.g. Which videos/shows did you watch? On a scale from 1 to 10, how would you rate each of these videos? Out of this list of brands, which one/s do you recall having seen during the session?). In order to increase the likelihood of obtaining accurate results, we will construct a cover story in which we communicate that our objective is to study their preferences regarding video content and whether

this differs across platforms. That way they will not be paying any more attention to the ads within the videos than they would have done in a natural setting. Lastly, the fact that this study features two different online video platforms will also allow us to determine differences in brand recall between short form and long form content (i.e. over/under 7 minutes long).

In the case of study 2, the purpose is to determine the effect of online video advertising on brand recall using the same platform but different ad formats. The procedure is the same as the one in study 1, but the list of videos that will be handed to participants will only be comprised of YouTube content featuring both skippable and non-skippable ads. Subjects will also have 30 minutes to browse and watch the content of their choice, and the Qualtrics survey will be similar to that of study 1. Our cover study will be slightly different, as the supposed objective in this case will be to study the way they interact with YouTube content and what kind of video genres they are most interested in. In order to ensure that we have a balanced distribution of exposure to the two ad formats, we will also divide the participants into two groups: the list for group 1 will be YouTube content with skippable ads and the one for group 2 will be YouTube content with non-skippable ads.

The data that we obtain from study 1 and study 2 will be collected and processed using the statistical analysis and data mining software SPSS. We will perform an ANOVA analysis in each study, which will allow us to examine the differences in the mean values of the DV (i.e. brand recall) for the two categories of our IVs (i.e. either video platform or ad format). Using this method will provide us with insightful statistics that will show, among other things, the strength of each of our IVs on the DV ($eta^2$) and the different variations in the DV ($SS_{between}$, $SS_{within}$ and $SS_y$). Once we analyze our data, we will be able to compare the results from studies 1 and 2 to our findings from the regression analysis, providing a more holistic framework to draw conclusions from.

## 4. Time plan

Our implementation plan forward will consist of three phases: The first phase (January-February) will involve establishing our conceptual framework (literature

review and formulation of hypotheses), as well as developing and fine-tuning our research method. That way we will have the necessary tools to move on to the second phase (March-April), which will include our data collection (pre-tests, study 1 and study 2). Lastly, the third phase (May-August) will consist of the data analysis and interpretation, which will allow us to draw conclusions as well as to determine the implications and limitations of our thesis project.

# 5. References

Anderson, J. R., Bothell, D., Lebiere, C., & Matessa, M. (1998). An integrated theory of list memory. *Journal of Memory and Language, 38*(4), 341-380.

Bellman, S., Treleaven-Hassard, S., Robinson, J. A., Rask, A., & Varan, D. (2012). Getting the Balance Right. *Journal of Advertising, 41*(2), 5-24.

Brechman, J., Bellman, S., Robinson, J. A., Rask, A., & Varan, D. (2016). Limited-Interruption Advertising In Digital-Video Content. *Journal of Advertising Research*, JAR-2016.

Burke, R. R., & Srull, T. K. (1988). Competitive interference and consumer memory for advertising. *Journal of consumer research, 15*(1), 55-68.

Cha, J. (2013). Do Online Video Platforms Cannibalize Television?. *Journal of Advertising Research, 53*(1), 71-82.

Danaher, P. J. (1995). What happens to television ratings during commercial breaks?. *Journal of Advertising Research, 35*(1), 37-37.

Hammer, P., Riebe, E., & Kennedy, R. (2009). How clutter affects advertising effectiveness. *Journal of Advertising Research, 49*(2), 159-163.

Li, H., & Lo, H. Y. (2015). Do You Recognize Its Brand? The Effectiveness of Online In-Stream Video Advertisements. *Journal of Advertising, 44*(3), 208-218.

Loughney, M., Eichholz, M., & Hagger, M. (2008). Exploring the effectiveness of advertising in the ABC. com full episode player. *Journal of Advertising Research*, *48*(3), 320-328.

Madden, M. (2007). Online Video: 57% of internet users have watched videos online and most of them share what they find with others. Pew Internet & American Life Project.

Pashkevich, M., Dorai-Raj, S., Kellar, M., & Zigmond, D. (2012). Empowering online advertisements by empowering viewers with the right to choose. *Journal of Advertising Research, 52*(4), 451-457.

Singh, S. N., Mishra, S., Bendapudi, N., & Linville, D. (1994). Enhancing memory of television commercials through message spacing. *Journal of Marketing Research*, 384-392.

Statista. (2017). Statistics and facts about online video usage. Retrieved from https://www.statista.com/topics/1137/online-video/

Teixeira, T. (2012). The new science of viral ads. *Harvard Business Review, 90*(3), 25-27.

Van Reijmersdal, E., Smit, E., & Neijens, P. (2010). How media factors affect audience responses to brand placement. *International Journal of Advertising, 29*(2), 279-301.

YouTube. (2017). Retrieved from https://www.YouTube.com