Evaluating the Effect of Mobile Display Advertising

-Guidelines on how to Advertise in the Mobile Channel

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Abstract

Title	Evaluating the Effect of Mobile Display Advertising - Guidelines on How to Advertise in the Mobile Channel
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Issue of Study	The mobile is a fairly new advertising channel, in which the time spent by consumers has rapidly increased. Advertising spendings are however not aligned, as companies do not fully understand the channel. The business is characterised by uncertainties on how to advertise and companies are unsure of what metrics to use when evaluating the campaigns.
Purpose	The purpose is to identify how product category, content type, frequency and engagement affect the consumer's awareness, preference and purchase intention, through campaigns on a mobile website. Further, the purpose is to investigate if there is a relation between the established click-through rate and the consumer's awareness, preference and purchase intention.
Method	A number of campaigns have been launched on one of Sweden's most visited mobile websites. The marketed products have been categorised as either fast moving consumer goods or durable goods, and each product has been advertised through a static banner, a rich media solution and a video.
	Targeted questionnaires have been sent out to individuals who have been exposed to the campaigns, and to individuals who have not been exposed to the campaigns. Data from the

two groups respectively has been analysed, in order to evaluate the effect from the advertisement.

Conclusions With a total of 35,982 completed questionnaires, the study's findings suggest that fast moving consumer goods are more suitable to advertise in the mobile channel, if the direct marketing objective is to drive preference and purchase intention. Durable goods increase awareness more than fast moving consumer goods. Regarding the content type, static banner has the greatest effect on preference and purchase intention, while video increases awareness more than static banner and rich media. There is a positive relationship between the number of exposures and a consumer's perception of a brand. The study's findings suggest that people who have engaged with a rich media solution or a video show a greater increase in awareness, preference and purchase intention. Last, the Click-Through Rate is not positively correlated with higher levels of awareness, preference and purchase intention.

Key Words Campaign Effect, Click-Through Rate (CTR), Engagement, Frequency, Mobile Advertising, Mobile Campaigns, Rich Media, Static Banner, Video

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Preface - Förord

De kommande timmarna är vad vi har väntat på sen våra första dagar vid Lunds universitet – idag tar TM15 examen. Klockan är nu strax efter ett på förmiddagen och solen skiner över ett grönskande Lund. Samtidigt som flyttbilarna går varma inser vi hur fantastiskt kul det här har varit. Kontrasterna blir tydliga.

Vår resa mot denna inlämning började redan för två år sedan när vi hamnade i samma grupp, under en middag med övriga TM-klasser. Sedan den vårdagen i maj har vi kämpat, skrattat, pluggat och njutit av vad kanske världens bästa studentstad har haft att erbjuda oss.

Runt hörnet väntar sommaren och ett första riktigt sommarlov på ett antal år. Samtidigt inser vi att det sannolikt även är det sista riktiga sommarlovet, som det här livet har att erbjuda. Efter sommaren väntar H&M för oss båda och internchatten kommer att gå varm – trots, eller kanske på grund av, att vi inte kommer befinna oss i samma stad.

I och med detta börjar också ett nytt kapitel i våra liv. Att ta klivet ut ur studentbubblan känns både spännande och sorgligt. Balerna, sexorna, vännerna, dagarna och minnena från Lund kommer alltid finnas kvar. Allt finns inte dokumenterat, men känslan är där. Vi önskar att alla skulle kunna få uppleva den eufori som har skapats inom oss under de senaste fem åren.

När du nu bläddrar vidare i detta examensarbete så kommer du enbart att vända sida. Ny sida, nytt diagram, ny brödtext. För oss blir det en vacker metafor. Vi vänder blad i en större kontext.

Den blomstertid nu kommer
med lust och fägring stor.
Du nalkas, ljuva sommar,
då gräs och gröda gror.
Med blid och livlig värma
till allt som varit dött,
sig solens strålar närma,
och allt blir återfött.

De fagra blomsterängar
och åkerns ädla säd,
de rika örtesängar
och lundens gröna träd,
de skola oss påminna
Guds godhets rikedom,
att vi den nåd besinna
som räcker året om.

Anton Olivensjö
Gustav Sundberg
Lund, 5/6-15

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Definitions

In order for the reader to get a better understanding of the thesis' terminology, a few definitions are hereby introduced. The terminology applies specifically to this thesis and are not always universal. Some of the terms will be further discussed from a theoretical point of view in 3.1 Development of Definitions.

A ***Campaign*** is a part of a marketing drive. All the products are marketed through three campaigns, each of a different content type (see below).

Click refers to a click on an advertisement where the user is redirected to an external landing page.

Click-Through Rate*,* or ***CTR*** is defined as the (total number of clicks on the ad) / (total number of impressions).

Cookies are small text files that are put on a user's mobile device to store information about the user (Microsoft, 2015).

The ***content types*** include ***static banner, rich media*** *and* ***video***.
- The ***static banner*** presents an ad with a sole image, text or a photo and does not include any animation.
- The ***rich media*** format is different from the static banner format by having animations. A rich media ad could for example spin, flip, blink and bounce inside its fixed pixel frame. All the rich media content types in this thesis offer the consumer the opportunity to engage, meaning that the consumer can explore the advertisement without immediately being redirected to a landing page.
- The ***video*** format presents a short preview of the video, which is looping. When clicked on, the full-length video is activated.

Durable goods are products with a significant intended life span, often more than three years (Encyclopædia Britannica 2015).

Engagement in this study refers to when a user swipes the rich media campaigns or plays the video. Other studies use the term interaction, which has a similar meaning.

Fast moving consumer goods*,* or ***FMCGs***, refer to goods that are non-durable (Majumdar 2007, 26). Examples include soft drinks, tolieteries and processed foods.

Frequency refers to how many times a specific advertisement has been loaded on a device, or how many times a viewer has been technically exposed to a campaign.

Being exposed to an advertisement is not equal to actually seeing it, so the terms loaded and exposed will be used interchangeably.

An **Impression** is counted for each times an ad has been loaded on a website.

Interstitial refers to a space on Aftonbladet's mobile website where an advertisement can be placed.

A **mobile device** is in this case equal to a smartphone.

Thesis Disposition

Introduction

In the Introduction, the subject of mobile advertising and its issues and problems are introduced, as well as the purpose and research questions of this master thesis.

Previous Studies on Mobile Display Advertising

The chapter inventories the most recent studies and its relevant finings on the subject of display advertising. The chapter will give the reader an understanding of display advertising and its performance, from findings in academic and industry publications. The chapter covers findings from both mobile and desktop.

Theoretical Framework

The Theoretical Framework presents theories used in this thesis. The theories are mainly based on the subject of consumer behaviour and are used in the analysis and discussion, to explain the results.

Set Up of the Study and its Methodology

The chapter is a thorough description of the set up and execution of the quantitative study. The methodology is mixed with the set up, in order to create an understanding of the methodological choices and its consequences.

Results

This chapter presents the results from the quantitative study. The data from the different marketed products are presented in tables and followed by an analysis of the sample, population and the study's 35,982 collected questionnaires.

Analysis and Discussion

In the Analysis and Discussion, the results are analysed and discussed together with the previous studies and theoretical framework.

Conclusions

This chapter will summarise the most relevant discussions and answer the thesis' research questions.

Table of Contents

1 Introduction

The following chapter will introduce the reader to the recent years' shift in the digital media landscape. As part of the digital media, the reader is introduced to the topic of mobile display advertising. Thereafter, the thesis' purpose and research questions will be presented, followed by its delimitations.

1.1 Background

Whenever a new advertising channel is introduced, uncertainties arise on how to efficiently address the consumers. One of the latest channels, which is on the up rise, is the smartphone (eMarketer 2015). Although mobile ad spending has increased over the last years, a gap exists between the time consumers actually spend in the channel and the amount of money advertisers invest. Recent figures show that consumers in the United States spend 20 % of their total media time on the mobile phone, but mobile ad spending reached only 4 % of the total media spending. This can be compared to TV, in which the consumer spends 38 % of total media time and the ad spending reach 45 % of the total media spending (Meeker 2014). Hence, there is a gap between ad spending in the mobile channel and the time consumers actually spend.

The potential reasons for the uneven spendings of time and money in the mobile channel appear to be many, and a few are listed below. First of all, when comparing the mobile platform and the traditional desktop, the mobile faces challenges mainly with targeting ads to specific users (Trilli 2012). This is due to limitations with cookies in the web-browser, where unique user information is not available to the same extent as the desktop. Secondly, the channel also faces a generally lower consumer attitude towards advertising (SessionM and Millward Brown 2012; Ho, Liang and Tsang 2004). Studies have shown that users are objective and action-focused when using the mobile phone, and the advertising interrupts the experience. When the ad interrupts the experience, the campaign is likely to be ineffective and sometimes even counter-productive and damaging to a brand (Rowles 2013).

Another challenge is that an advertiser pays for impressions, and not for results. Impressions are counted whenever the ad has been loaded on a website, but not necessarily seen by a consumer, as the consumer may not visit the area in which the ad has been loaded (Rowles 2013). Further, there are uncertainties on how to efficiently evaluate advertising campaigns. Different metrics are used in the business, which makes it hard to fully understand the campaigns' performance. Campaigns can be evaluated by looking at simple metrics, like CTR, or by evaluating the communication effect (Kotler and Armstrong 2011, 450). Evaluating the effect of the advertisement has become more and more important in recent years. Last of all,

the mobile phone offers smaller screens than desktop, which limits the advertiser's freedom, and makes the mobile channel challenging for publishers and advertisers to work with (Leonard 2013).

Since there is an imbalance between time spent and advertising spending on the mobile channel, there is a business opportunity to seize for the companies offering advertising space. As seen in Figure 1, companies are starting to recognise the opportunity and mobile display advertising spending is increasing.
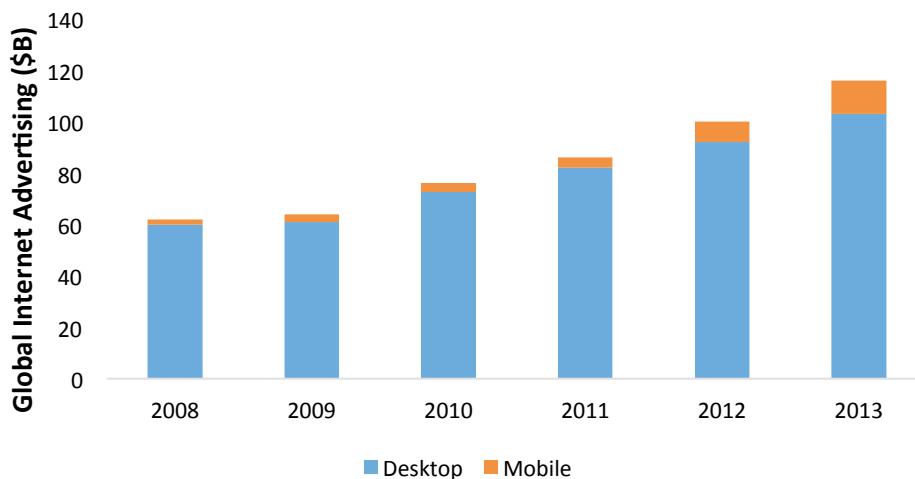
Figure 1. Global Internet advertising over the desktop and mobile

One of the companies which has started to recognise the mobile channel is Schibsted Media Group, further referred to as Schibsted. The company is the owner of some of Sweden's most popular websites and they are now experiencing increasing traffic through the mobile. Some websites in Schibsted's portfolio have more than 50 % (KIA-index 2015) of their digital traffic running through the mobile devices (measured in unique visitors), and therefore the channel becomes strategically important. For Schibsted, this means that they have to work continuously with the mobile channel in order to stay competitive. One step towards a better understanding of the mobile channel, is to know how smartphone users actually respond to advertising

1.2 Purpose and Research Questions

As stated above, the industry is characterised by uncertainties. The degree of freedom when creating ads is almost unlimited, and the actual understanding of the fairly new mobile display advertisements is low. It is however, as seen above, not only a question of how to advertise, but also how to efficiently evaluate the campaigns in the mobile channel. As will be stated in *2.0 Previous Studies*, most of the research which has been done on mobile display are based on the metric CTR. This calls for a study in which the actual campaign effect is evaluated, rather than evaluating basic metrics. Hence, in order to increase the understanding of mobile display advertising, the thesis has the following purpose:

> *The purpose is to identify how product category, content type, frequency and engagement affect the consumer's awareness, preference and purchase intention, through campaigns on a mobile website. Further, the purpose is to investigate if there is a relation between the established click-through rate and the consumer's awareness, preference and purchase intention.*

To fulfil the thesis' purpose, 30 campaigns with ten different advertised brands are launched on Aftonbladet's mobile website. Thereafter, together with gathered data from questionnaires and an ad serving system, the thesis will answer the following research questions:

> *(1) How do product category, content type, frequency and engagement affect the consumer's awareness, preference and purchase intention?*

> *(2) Is there a relation between the click-through rate and awareness, preference and purchase intention?*

1.3 Delimitations

The thesis has taken a positive delimitation approach, meaning that it will only take into account the variables and metrics presented in the following paragraphs. The amount of variables that potentially could have the smallest effect on the study's outcome is more or less infinite, and a study of this kind cannot take all of them into account.

The thesis aims to measure how the metrics *awareness, preference* and *purchase intention* are affected by the variables *product category, content type, integration* and *frequency*. To clarify for the reader, these are the only metrics and variables that will be analysed. Further, CTR is the only metric which will be benchmarked against awareness, preference and purchase intention.

2 Previous Studies on Display Advertising

The purpose of this chapter is two folded. First, the purpose is to show that a thorough literature review has been carried out - and that publications within mobile display advertising are rare. Second, by highlighting previous studies, the reader is introduced to the current understanding in the field. By doing so, this chapter will present some of the most previous and relevant studies of display advertising. As research on the mobile device is rare, some papers will not solely focus on the mobile channel, but also include desktop or tablet. The chapter is divided into two sections, in which the first part examines the academic research that has been published on display advertising. The second section is dedicated to companies and organisations in the industry.

2.1 Academic Publications

Which Products are Best Suited to Mobile Advertising?
Bart, Stephen and Sarvary (2014)
The study by Bart, Stephen and Sarvary (2014) investigated which products that are best suited for a mobile display campaign by testing how nearly 40,000 visitors reacted to 54 different campaigns. Bart et al. (2014) decided to focus on two metrics, namely favourable attitude and purchase intention, since these are commonly used in advertising research, and also common campaign objectives. The study concluded that only products which required high involvement and products that were utilitarian could increase the consumer's attitudes and purchase intention, when advertised on a mobile device. Corresponding products could be cars for example, and its direct opposite include FMCGs (Bart et al. 2014). Hence, Bart et al. (2014) claim that FMCGs cannot be efficiently advertised through the mobile channel.

The Creativeness and Effectiveness of Online Interactive Rich Media Advertising
Rosenkrans (2009)
Rosenkrans (2009) aims to determine whether interactive, rich media advertisements lead to an increased amount of clicks per advertisement, compared to non-interactive, rich media advertisements. This was tested through hypotheses and supported with literature and theories on interactivity, creativity and distinctiveness.

Interactivity lets the consumer or viewer of an advertisement control the advertising message (Song and Zinkhan 2008; Pavlou and Stewart 2000, cited in Rosenkrans 2009, 3), and further allows the consumer to select the content, timing and communication act (Li, Daugherty and Biocca 2002, cited in Rosenkrans 2009, 3). Rosenkrans' study (2009) pointed out that interactive rich media leads to a greater

user involvement, and that these ads could generate higher CTR than non-interactive ads.

Distinctive advertisements, which are distinguished from the rest of the visual field, draw attention and are recalled better than non-distinctive advertisements (Phillips and Lee 2005, cited in Rosenkrans 2009, 4). These ads also have the potential to generate higher CTRs, compared to static ads (Cho, Lee and Tharp 2001; Heo and Sundar 2000; Hong, Thong and Tam 2004, cited in Rosenkrans 2009, 4). The fact that distinctive advertisements are recalled better than static banners, can lead to more positive attitudes towards the brand, and a stronger purchase intention (Choi, Miracle and Biocca 2001, cited in Rosenkrans 2009, 4). Last of all, creativeness can influence the click-through rates (Baltas 2003, cited in Rosenkrans 2009, 4).

2.2 Industry Publications

Publications from the different companies have been gathered in order to get an understanding of the current level of knowledge within the industry. This has been done when applicable, since not all the companies publish reports or white papers. Table 1 shows a number of companies within the business, a short description of them and their publications on mobile display advertising performance - if such exist. The findings are summarised below. If a company has published similar papers over the last years, only the most recent or most relevant will be summarised.

Table 1. An inventory of industry publications

Company	Description	Publications
Adform	Adform delivers campaigns for over 3,062 clients across 7,542 global in more than 35 countries worldwide (Adform 2015)	• Rich Media Benchmark 1HY 2014 • Rich Media Benchmark Q3 2014
Medialets	Medialets makes mobile advertising work for brands, agencies & consumers (Medialets 2015)	• Medialets H1-2014 Mobile & Tablet Advertising Benchmark Report

Millenial Media	Millennial Media is a mobile advertising and data company targeting mobile consumers, application and media developers and mobile operators (Crunchbase 2015a5)	N/A
Pointroll	Pointroll is a multi-screen digital ad tech and services company helping markets and publishers create and deliver advertisements (Crunchbase 2015b)	• 2014 Benchmarks • Mobile Rich Media Performing in High Gear (2014)
Sizmek (formerly MediaMind)	Sizmek works with more than 3,400 agencies, over 17,000 brand advertisers in more than 70 countries (Sizmek 2015)	• Sizmek Mobile Benchmarks 2014 *or* • DG MediaMind Mobile Benchmarks 2013 • The Rich and the Powerful (2012)
Widespace	Widespace are experts within mobile marketing (Widespace 2015)	N/A

Rich Media Benchmark HY 2014
Adform (2014)
Adform's (2014) findings are divided over four levels: static banner, rich media, video and mobile (which in turn includes static banner, rich media and video, but these are not presented separately in the paper). Figure 2 shows that rich media and video tend to be more attractive for the viewer, as these are more frequently clicked on than static banners and mobile content (Adform 2014, 4).
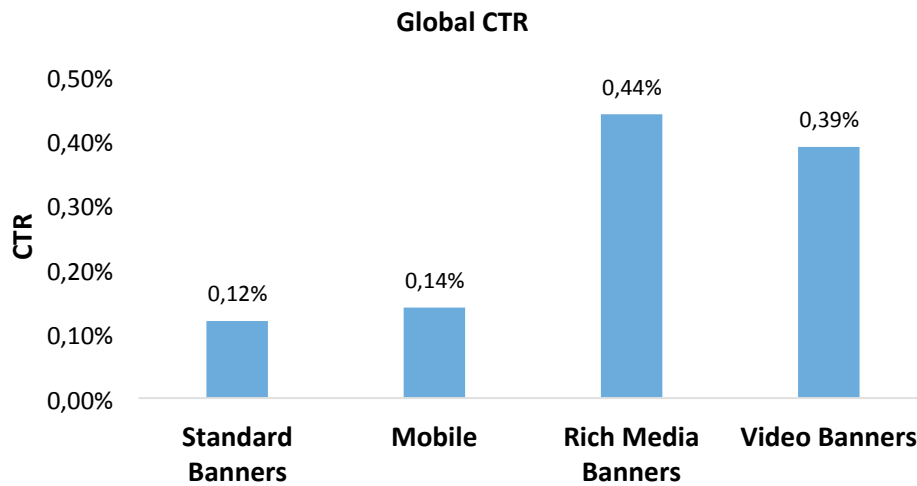
Global CTR

Figure 2. Global CTR for different formats (Adform 2014, 4)

People also tend to engage more frequently with rich media solutions on desktop, than on the mobile counterpart. The engagement rate is 16.85 % for rich media on desktop compared to only 1.62 % for mobile, which can be seen in Figure 3 (Adform 2014, 5). However, time spent integrating with a banner is higher for mobile than any other format, as seen in Figure 4 (Adform 2014, 6).

Global Engagement Rate
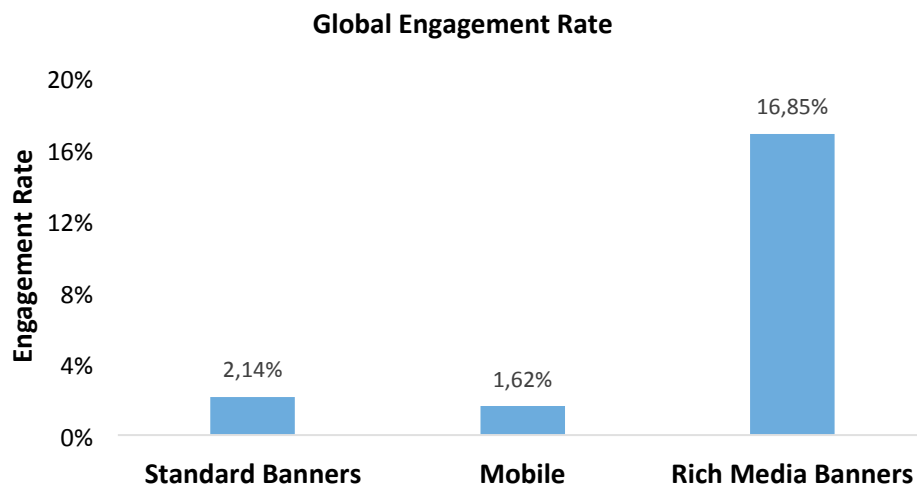
Figure 3. Global engagement rate for different formats (Adform 2014, 5)

Global - Average Engagement Time (Sec)
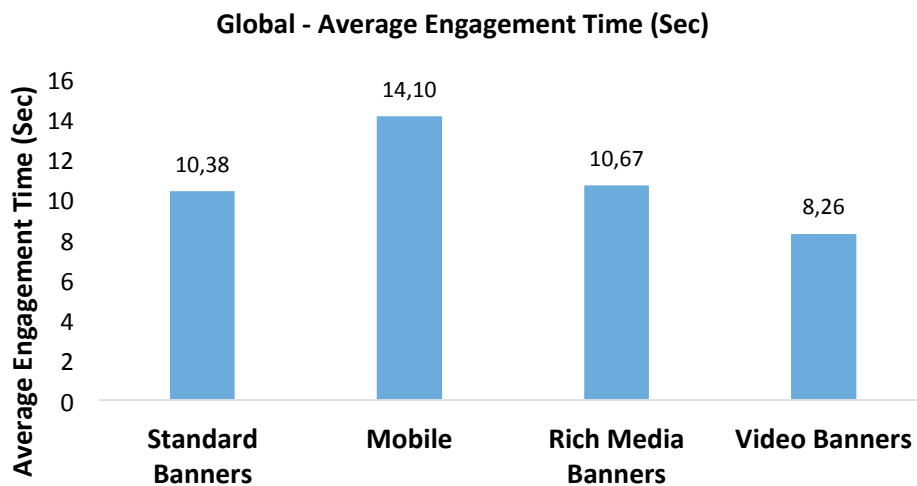
Figure 4. Global - Average engagement time for different formats (Adform 2014, 6)

Medialets Mobile and Tablet Advertising Benchmarks
Medialets (2014)

The Medialets Mobile and Tablet Advertising Benchmarks report (2014) present findings of the three content types static banner, rich media and video in the mobile and tablet platform. The static banner is the most efficient content type for increasing landing page visits and driving app downloads. The rich media content is the most efficient content for driving the consumers' engagement and increasing time spent interacting with the advertisement. When using videos within the rich media format, they create brand awareness and brand engagement (Medialets 2014, 26).

Pointroll 2014 Benchmarks
Pointroll (2014a)

Pointroll's (2014a) findings show that in-stream video, such as commercials before a YouTube-video, have the highest CTR of 0.62 %. The in-stream videos are followed by mobile rich media, with a CTR of 0.22 %, as seen in Figure 5 (Pointroll 2014a, 5). In-stream video is also the ad type with the highest engagement rate, while rich media solutions in the mobile has the lowest interaction rate of the ad types, which is shown in Figure 6 (Pointroll 2014a, 6).

20
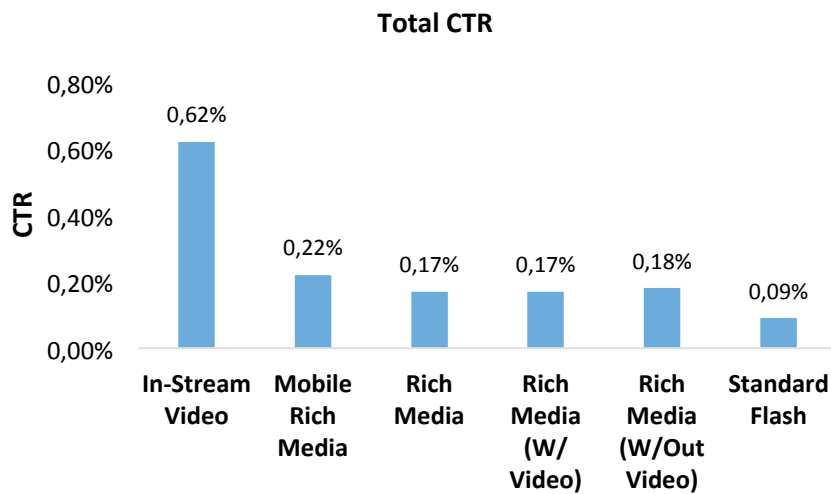
Total CTR

Figure 5. Total CTR for different formats (Pointroll 2014a, 5)
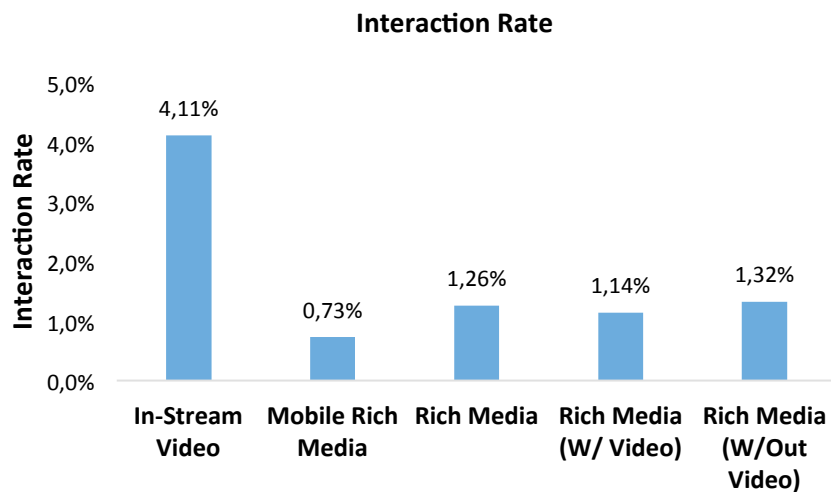
Interaction Rate

Figure 6. Interaction rate for different formats (Pointroll 2014, 6)

Mobile Rich Media Performing In High Gear
Pointroll (2014b)
Pointroll (2014b) states that, for desktop, "ad click-throughs have very limited correlation with brand activity, and consumers who engage with ads report higher brand affinity and recall" (Swarts 2013, cited in Pointroll 2014b). In this paper, Pointroll (2014b) aims to test if this is also true for the mobile platform. Pointroll (2014b) concludes that the static banner, with its simple messaging, allow for a call-to-action that encourages clicks, and that the rich media ads keep the consumer

more engaged. Further on, the mobile channel must look beyond the CTR when evaluating campaign performance and comparing rich media solutions with other content types (Pointroll 2014b). This is because users are more likely to engage with rich media solutions rather than click on them (Pointroll 2014b).

MediaMind Mobile Benchmarks
MediaMind (2013)
MediaMind (2013) analysed more than two billion impressions across roughly one thousand mobile campaigns. MediaMind (2013), in contrast to the studies above, focused on the mobile channel solely. Their findings reveal that retail and electronics are the verticals with the highest CTR, followed by financial services and entertainment (MediaMind 2013, 2), see Figure 7.
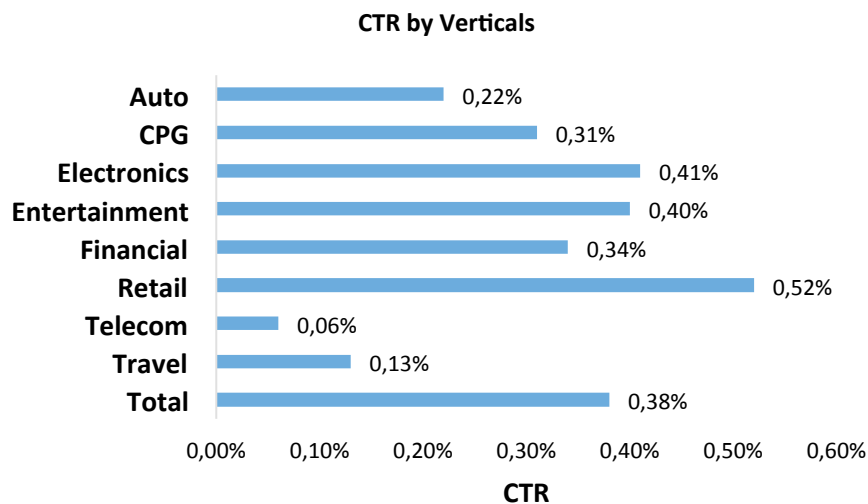
CTR by Verticals

Figure 7. CTR by verticals (MediaMind 2013, 2)

Regarding video starts and completions, auto (9.16 %), consumer packaged goods (5.43 %) and telecom (3.29 %) had the highest start rates. These were also the verticals with the highest completion rates (MediaMind 2013, 3).

3 Theoretical Framework

Whereas the previous chapter inventories research on mobile display advertising specifically, this chapter will present a number of theories which will help to support the thesis' analysis. The chapter begins with a theoretical approach to the thesis' definitions, and is followed by basic marketing terms and relevant theories from consumer behaviour literature.

3.1 Development of Definitions

The concepts below have been mentioned before, in either Definitions or in the *1.1 Background*. However, the aim with the following paragraphs is to add an extra dimension of theoretical understanding of the terms.

3.1.1 Durable Goods and FMCGs

Durable goods are defined as products with a lifespan of often more than three years (Encyclopædia Britannica 2015). However, some products with a lifespan of even one year are considered durable goods. The durable products are seen as products that require high involvement (Marek et al. 2014, 354; Ferrell and Pride 2012, 150) and the consumption of a durable good is spread over its lifespan. FMCGs, on the other hand, are products that are bought frequently with low involvement, and come at a low price (Majumdar 2007, 28). Since FMCGs are cheap, trying a new brand is associated with a low financial risk (Hardy, Hawkin, MacRury and Powell 2009, 162). The choice between different brands and products can be induced by heavy advertising, recommendations from the retailer or friends, and does not require any deeper processing of the message (Rampier 2012, 59).

3.1.2 Impressions and CTR

Impressions and CTR are two metrics related to the advertisement's potential performance, and the CTR is one of the most common when evaluating a campaign (Rowles 2013). The most basic form however is impressions, which is the total number of times an advertisement has been loaded on a website. As mentioned in *1.0 Introduction*, an impression does not necessarily mean that the consumer has seen the advertisement. As advertising space is bought on an impression-basis, the company advertising their products cannot be certain that people will actually see their ads (Rowles 2013).

The CTR evaluates a campaign solely by looking at the amount of clicks in relation to impressions. It thereby ignores the individuals who potentially have noticed the advertisement, but decided not to click on it (Google 2015). Because of this, it is not always a sufficient metric to use. If the intention with an advertisement is to get the consumer to go through with a purchase, CTR will not show the full picture. Chances

are that consumers leave the landing page as soon as they arrive. Equally, somebody who did not click on the ad, but saw its content, may go on to make a purchase later.

3.2 Consumer Behaviour

The field of consumer behaviour covers several concepts and theories, and includes a group's or individual's selection, purchase or use of products to satisfy needs or desires. These needs or desires range from basic needs, such as hunger, to abstract phenomena such as status (Solomon et al. 2006, 6). This chapter aims to highlight the most basic groundwork of consumer behaviour from three perspectives, namely *perception*, *learning*, and *involvement*. It is then concluded with two other concepts of consumer behaviour and marketing, which are central to the thesis.

3.2.1 Perception

Consumers are selective about what they pay attention to. Usually, only a small amount of the messages they are exposed to are noticed (Solomon et al. 2006, 47). This is called perceptual selectivity, in which consumers pick and choose between stimuli in order to not be overwhelmed by all the messages that are constantly exposed to. Within perceptual selectivity there are two aspects, namely *exposure* and *attention*.

Exposure is the degree to which people notice a message. People tend to be aware of stimuli that relate to their current needs, and ignore other messages at the same time (Solomon et al. 2006, 48). People also tend to adapt to a message and no longer pay attention to these, as the stimuli becomes familiar. *Adaption* can depend on several factors, such as low intensity, duration (in which the consumer has to pay attention for a period of time), repeated exposure or relevance (Solomon et al. 2006, 48).

Attention refers to how well a consumer focuses on a company's advertising stimuli. This is becoming more and more important as the amount of messages sent to a consumer increases. Some expensive strategies companies use to cope with today's advertising clutter are to buy full-pagers or minute-long TV-commercials. Other strategies include printing parts of the advertisement upside down, or in some other way create contrast to the surroundings (Solomon et al. 2006, 49)

3.2.2 Learning

Understanding how consumers learn is an important aspect of marketing, and many decisions are based on an assumption that consumers can be taught to prefer an alternative over another (Solomon et al. 2006, 67). *Repetition* is one way to increase the awareness and preference of a product and Krugman (1986, cited in Solomon et al. 2006, 68) claims that more than three exposures are wasted. The first creates awareness of the product, the second demonstrates the relevance of the product

and the third reminds the consumer of the product (Krugman 1986, cited in Solomon et al. 2006, 68).

Another theory within the same field is the *mere exposure* phenomenon, which suggests that an individual tends to increase the attitude towards an object through repeated exposures. This happens even without a deeper cognitive analysis of the message (Hoyer and MacInnis 2008, 156). On the other hand, as stated above, repeated exposure can lead to adaption, which means that a consumer pays less attention to a repeated message. This means that there is a fine line between familiarity and boredom, when a consumer is repeatedly exposed to an advertisement (Solomon et al. 2006, 184). This is illustrated in Figure 8.
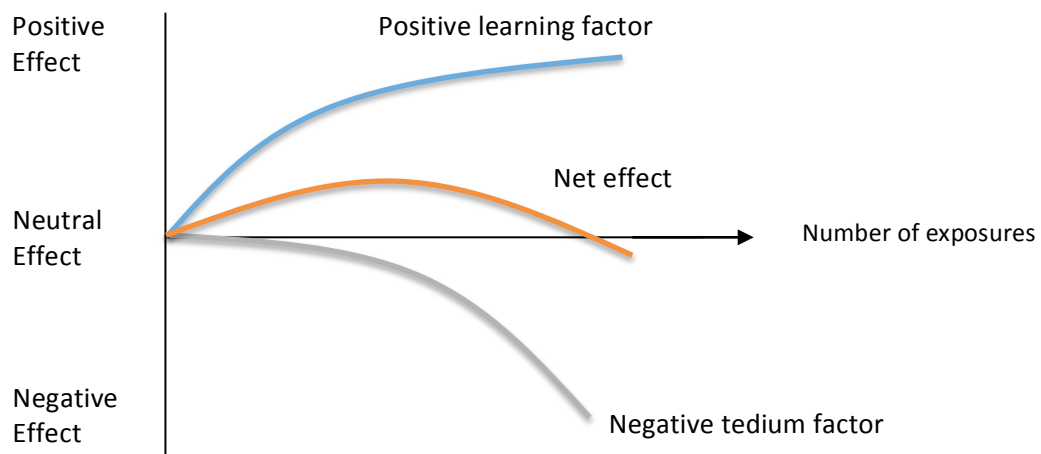
Figure 8. The two-factor theory and advertising wear-out (Marks, Rethans and Swasy 1986)

3.2.3 Involvement

Involvement is defined as "a person's perceived relevance of the object based on their inherent needs, values, and interests" (Solomon et al. 2006, 105). It can be seen as the motivation to process information (Solomon et al. 2006, 106). The word object is used in the generic sense and refers to a product (or a brand), an advertisement, or a purchase situation. Consumers can find involvement in all these objects (Solomon et al. 2006, 105).

Involvement is anteceded by a number of different factors, such as personal factors (needs, values, interest and so on), object factors (source and content of communication) and situational factors (purchase/use, occasion). When involvement takes place with the advertisement, the product, and the purchase decision, a number of results are possible. The consumer can create preference for a particular

brand or elicitate counter-arguments to the advertisement. (Solomon et al. 2006, 106).

3.2.4 The Rosser Reeves' Fallacy

The *Rosser Reeves' fallacy* originates from the Hobson Bates agency, where the head of the organisation Rosser Reeves claimed that consumers, who were aware of the agency's advertisements of a given product, were also more likely to buy that product. However, the opposite relation is true - people who frequently buy a product are generally more aware of the advertisement and tend to notice it (Field and Pringle 2008, 131; Petit 2005, 350).

3.2.5 A Behaviour Model for Persuasive Design

Fogg (2009) argues that a targeted behaviour is reached with the right *motivation*, *ability* and a *trigger*. The motivation can be either pleasure or pain, hope or fear and acceptance or rejection. The ability depends on the individual's financials, time, physical effort and so on (Fogg 2009, 5-6). Hence, an individual can have the motivation (pleasure) but not the ability (financials).

The trigger is what makes an individual carry out the targeted behaviour. It can take many forms, such as a picture, a text message or a sound (Fogg 2009, 3). Spam and pop-up ads are actually triggers, but they are usually more nuisance than a message that converts to behaviour. Triggers go by many names, such as prompts, cues, calls to action and so on, but they all aim to change the behaviour of an individual (Fogg 2009, 6). A successful trigger has three characteristics: first, the individual notices the trigger. Secondly, the trigger lets the consumer associate it with the target behaviour. Last, the trigger happens when both motivation and ability is high (Fogg 2009, 3). Fogg (2009, 7) further states that the trigger-behaviour coupling will become even apparent in the mobile channel, and the mobile will be the channel where many behaviours are triggered.

4 Set up of the Study and its Methodology

The set up of the study, and to understand how it is done, is a central part of this thesis. The following chapter will present the study's choices, set ups and involve the methodological decisions that have been made. The chapter is initiated with a discussion regarding the methodological approach and followed by a detailed description of the setup, the implementation and the analysis. Throughout the chapter, the aim has been to discuss as many of the methodological choices as possible.

4.1 Methodological Approach

The methodological approach takes the relation between theory and research into account. A researcher can either have a *deductive* or an *inductive* approach. The deductive approach allows the researcher to set up hypotheses from theory, and test these with data. The inductive approach, on the other hand, lets the researcher create theories from data with little or no previous knowledge. However, there is no clear cut between the two approaches and a deductive approach will most often include elements of induction, and the other way around (Bryman and Bell 2011, 11-14). This thesis moves between the two approaches. The initial phase of the research is of deductive character, in which existing theories are gathered in order to create an understanding of mobile display advertising. When an adequate level of theoretical understanding is reached, the approach shifts to more of an inductive character.

To eliminate bias in the research process and reach results that could be repeated if the same method is followed, three conditions have to be satisfied: *reproducibility*, *standardisation* and *representativeness* (May 2013, 121-122). The reproducibility is discussed on a general basis below, since it is of importance through the entire study. Standardisation is found in *4.2 The Study* and becomes important when choosing variables, launching the campaigns and collecting and processing the data. Last, the representativeness is a matter of the study's population and sample, and therefore futher discussed in section *4.3 Population and Sample*.

The intention with this study is to reach a high degree of reproducibility, meaning that other researchers should be able to to reproduce or repeat the study by using a similar sample, questionnaire and process (May 2013, 121). This is done by presenting in detail how the study is conducted, together with highlighting its strengths and weaknesses. The thesis aims for transparency to enhance the possibility of reproduction. If the results of a study are replicable by another scientist, it safeguards against an influence of the scientist's biases and values (Bryman and Bell 2011, 165).

4.2 The Study

The intention with the study is to test how four different variables in a mobile display advertisment affect a consumers awareness, preference and purchase intention and to find if there is a relation between CTR and the awareness, preference and purchase intention. This is done by launching a total of 30 campaigns, made up by ten different products, on Aftonbladet. After a finished campaign, the awareness, preference and purchase intention are measured with targeted questionnaires.

The study has followed the order presented below. This is further the order of the sections in this chapter.

1. Set up of the campaigns
2. Launching campaigns
3. Data collection
4. Data processing
5. Data analysis

4.2.1 Set up of the Campaigns

The study includes four different variables, namely product category, content type, frequency and engagement. The variables are of different character, where product category and content type are determined before the launch of the campaigns. The variables frequency and engagement depend on the consumers' behaviour on Aftonbladet's mobile website and are determined after a finished campaign. All four variables are explained in detail below, and illustrated in figure 9.
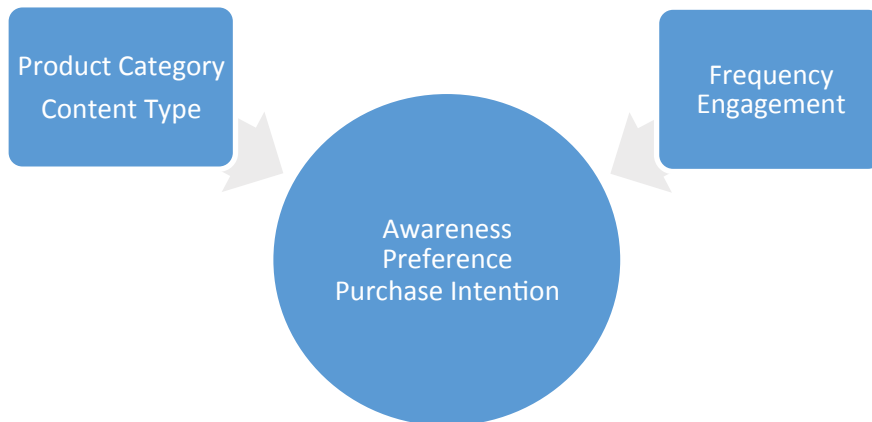
Figure 9. A visualisation of how Product Category, Content Type, Frequency, and Engagement affect Awareness, Preference and Purchase Intention.

Product Category

The variable product category was chosen because Bart et al. (2014) concluded that only utilitarian products that required high involvement could be marketed in the mobile channel. Therefore, this study classifies products into two overall categories, namely FMCGs and durable goods to see if there is any distinct difference in awareness, preference and purchace intention.

Ten different products are included, in which six of them are categorised as durable goods and four as FMCGs. The choice between the different products was restricted because of two main reasons. First, the study took place in a real business environment, and the number of suitable clients and advertisers was limited. Second, the time frame in which the campaigns could run was between the end of March and the beginning of April - which further limited the selection. As a result, products from the same industry were used. The brands in the study have chosen to stay anonymous. Even though the brands are kept anonymous, they are assumed to have contributed to the results in a positive way, with their professional bureaus and well-made campaigns.

The following products were advertised:

Durable Goods
- Automotive A
- Automotive B
- Financial Services
- Insurance Services
- Telecommunications A
- Telecommunications B

FMCGs
- Coffee
- Fast Food A
- Fast Food B
- Margarine

All the chosen advertised products in this study are real products and the campaigns are created together with the brands' media bureau and a production company. This means that during the campaigns' time periods, the readers of Aftonbladet are unaware of the test and the upcoming questionnaires - there is no indications of an ongoing study. This is assumed to reduce the bias of the respondents.

Content type
The variable content type is chosen because the industry simply does not know which content type that creates the highest campaign effects. Static banner, rich media and video are the three content types this study focuses on, and every product is advertised with these three content types. With three different content types and ten advertised products, the study resulted in a total of 30 campaigns. By doing this, the impact on the consumer can be analysed regardless of the product.

Examples of the content types are presented in Figure 10. The static banner, is a single image, without any animation. At a click, the viewer is directed to a landing page.

There are many different creative formats within the rich media content type, and in this thesis it can take the form of either a spincube, a prism or a flip-pic. These creative formats are chosen because they are the most commoly used formats at Aftonbladet. A spincube is an animated three dimensional cube, with four sides. Each side reveals a picture for the viewer when he or she swipes the cube. A prism is similar to a spincube but with three sides, and the flip-pic is an animated two-sided picture. By clicking the rich media content, the viewer is redirected to a landing page.

The video content type is presented for the viewers as a looped preview, on top of a static picture. The preview loops until the viewer clicks on the animated content. At the click, the video goes into fullscreen mode and loads the entire video content. If the viewer clicks on the static picture in the background, he or she is directed to the landing page.

Figure 10. Examples of the content types. From the left: static banner, rich media and video

Frequency

As stated in *3.2.2 Learning,* it is known that repeted exposures have an impact on the consumer. This has not been tested in the mobile channel and together with today's tracking technology (cookies) it is possible to investigate the frequency effect even further. In each of the 30 campaigns, cookies keep count of how many times each unique device has loaded (an impression) the specific ad. The different campaigns are presented at random, meaning that a consumer theoretically can be exposed to a campaign a couple of hundred times, or more, if he or she visits Aftonbladet frequently. Since a consumer cannot be forced to visit Aftonbladet and the fact that all campaigns are presented at random, this variable was determined after a finished campaign.

Engagement

The engagement variable has two possible outcomes, either engagement or no engagement. The engagement is only possible for the rich media content (a swipe) and the video content (playing the video). Cookies keep track of the users who

engage with the rich media or video, and the users who do not engage. The study separates the exposures and integrations but for the consumer to be able to integrate, he or she must be exposed.

Overall settings

To be able to make all the campaigs comparable, some parameters are held constant.

- All the campaigns are published on Aftonbladet's mobile website, accessible from the browser in the mobile devise.
- The advertisements are placed in the second interstitial which is viewable by scrolling approximately two times on the screen.
- The pixel frame size of the advertisements is 320 x 320 pixels, regardless of the content type.
- The ambition is to book each campaign with 400,000 impressions, giving the advertised product a total of 1,200,000 impressions.
- A product with its three campaigns, are launched at the same time with the same time period.

4.2.2 Launching the Campaigns

The study requires that a number of cookies are implemented. First, the cookies are implemented in order to be able to target and separate the content types. For each product, three campaigns are launched (and taken down) at the same time; one static banner campaign, one rich media campaign and one video campaign. To draw conclusions from the content types, these have to be isolated meaning that a user will only be allowed to see one content type per advertised product.

Secondly, cookies keep track of a user's frequency and engagement, as cookies are dropped on the user's mobile device whenever a campaign is loaded or the user engages with its contents. The last reason is to be able to target the questionnaires, to make sure these are sent to the right individuals.

After the cookies have been implemented, the campaigns are launched on Aftonbladet's mobile website.

The following example will illustrate how a visitor of Aftonbladet is targeted campaigns:

1. The first time a reader visits Aftonbladet's mobile website, one of the study's advertised products is randomly chosen to be presented on the second interstitial. For example the device is assigned the advertisement for product X.

2. At the same time, one of the three campaigns is randomly chosen. Assume the reader is presented the static banner, which loads on the second interstitial on Aftonbladet.

3. Cookies containing information about the campaign are dropped on the device. Since it is the first time the device is exposed to the campaign, it is registered as a unique visitor. Also, one of the campaign's 400,000 impressions is used. If the viewer clicks on the advertisement, the CTR is affected.

4. The next time the reader visits Aftonbladet, from the same device, it will take one of two alternative routes:
    a. If the device, once again, is presented the advertisement for product X, the cookies on the device will go through a number of conditions in the ad serving system. The conditions make sure that the two other campaigns, the rich media and the video campaign, are excluded. This time, the device is not registered as a new unique visitor. Instead, the system now registers that the user has a frequency of (2). Another of the campaign's 400,000 impressions is used.
    b. If another of the study's marketed products is randomly chosen, such as product Y, the loop (1-4) will start over again.

These loops continue until the campaigns have reached their end date and their booked number of impressions.

In this study, and the example above, unique visitors are kept track of with the help of cookies in the mobile devices. The possibility of a person visiting Aftonbladet from multiple devices is out of the study's control and could possibly result in three main errors. First, it might affect the frequency variable and giving it a false value. An individual can potentially see one campaign several times over different devices, but only respond to a questionnaire in one of the devices. Secondly, following the same logic, the study cannot guarantee that an individual is exposed to only one of the three campaigns. Last, the consumer can engage with an ad from one device but receive a questionnaire from another, where he or she has not engaged.

Another conflict with cookies is that they can be actively deleted in the device. This could result in false data, even if the individual uses only one device. If cookies are deleted from a device, the engagement and frequency variables will be zeroed for

that device, and the device can be presented another campaign of the advertised product. The last technical limitation is the conflict between the mobile website and the application, where an individual can see different campaigns and engage without data being properly gathered.

4.2.3 Data Collection

Targeting the Questionnaires

The day after an advertised product is taken down from Aftonbladet, questionnaires are targeted to four different groups of readers, namely the devices that had not been exposed to the marketed product, the devices that had loaded the static banner campaign, the devices that had loaded the rich media campaign and the devices that had loaded the video campaign. However, as the rich media and the video campaigns allow for engagement, they create two additional groups: those who engaged with the rich media and those who played the video. This is made possible by the cookie implementation described above.

Hence, questionnaires were targeted to four groups, but the completed questionnaires were categorised into six different sample groups:

1. Reference Value Group. These respondents never saw any of the three campaigns for the specific product, hence no cookies were dropped on the device. These individuals are also referred to as the unexposed group.
2. Static Banner: Exposed Value Group. These respondents loaded (were exposed to) the static banner.
3. Rich Media: Exposed Value Group. These respondents loaded (were exposed to) the rich media campaign, but did not engage with it.
4. Rich Media: Engagement Value Group. These respondents engaged with the rich media campaign.
5. Video: Exposed Value Group. These respondents loaded (were exposed to) the video campaign, but did not engage with it.
6. Video: Engagement Value Group. These respondent played the video campaign.

These sample groups exist for all ten advertised products. The groups have been adressed by sending out questionnaires. A methodological advantage with questionnaires is that they are easy to reproduce to a large amount of respondents and easily converted and analysed with statistical software (Halvorsen 1992, 87; May 2013, 145).

The Questionnaires

The questionnaires that are used to gather data can be found in Figure 11. The questionnaires are created, monitored and gathered by an external company named Inizio and it is therefore beyond the scope of the study to adjust the questions. The

questionnaire is part of the Inizio Digital Admap tool further described in *4.2.4 Data Processing*. The full questionnaire is presented to the viewer on top of the mobile website, with the website visible but slightly darkened behind the questionnaire. This indicates that the effort required to complete the questionnaire is low. No matter what sample group the individual belongs to, the same questionnaire is sent out. Hence, individuals who have engaged with e.g. the rich media answer the exact same questionnaire as individuals who loaded the static banner.

Figure 11. The Inizio Digital Admap questionnaire

Three questions are asked about the perception of the advertised product, but the viewer is never asked whether he or she has seen the actual advertisement. This is an advantage because people who recall or try to recall an advertisement do so because they are more likely to buy such a product, or have a special relation to the advertised brand. The risk is that this will raise the individual's perception. Instead, the effect is evaluated from exposure. This is enabled through the cookie targeting, which tells whether an individual has been exposed to a campaign or not. By knowing who has seen the advertisement, and not asking about it, the method reduces the bias effects.

The questionnaire presents four questions to the viewer that can be graded from (1) to (7), where (1) is the lowest value and (7) is the highest. The four questions, and the logic behind them, are presented below. A full list of the ten advertised product's questions can be found in Appendix A.

1. How well do you know [advertiser]?
   This question addresses the awareness.
2. If you were to by [product] would you prefer [advertiser] or another brand?
   This question addresses the preference.
3. How likely are you to buy [product] within [time period]?
   This question addresses the purchase intention. The time period varies depending on whether the advertiser is promoting FMCGs that are purchased often, or durable goods that are purchased more rarely. This justifies comparisons over different product categories, as the time frame of the purchase intention is compensated for.
4. During the past 14 days, how often have you visited [website]?
   This question is primarily used for weighting the two sub samples (unexposed and exposed), which is described below.

Awareness, preference and purchase intention are central in this thesis and they follow a clear hierarchy-of-effects, from unawareness to a possible action such as a purchase (Barry 1987, 251). Looking at the questionnaire, each question addresses the awareness, preference and purchase intention respectively. By using a hierarchy-of-effects when evaluating the campaign, it is possible to set up communication goals and the results of the measurements can be presented in terms of movement within the hierarchy. The outcome in such a evaluation could for example show a movement upwards a number of levels in the hierarchy.

Awareness, in its most vague and widest formulation, is defined as the "knowledge or perception of a situation or a fact" (Oxford Dictionaries 2015c). The term can further be used in marketing and advertising, such as brand awareness. Brand awareness is defined as "the strength of the brand node or trace in memory, as reflected by consumers' ability to identify the brand under different conditions" (Keller 1993, 3).

The next level in the hierarchy, preference, is simply defined as "preferring when compared to other brands" (Kotler and Armstrong 2012, 416). The last term, purchase intention, is defined as the "purchase probability associated with an intention category at the percentage of individuals that will actually buy product" (Whitlark, Geurts and Swenson 1993). However, as stated by Kotler and Armstrong (2012, 154) purchase intention is not the same as purchase decision, since especially two factors, attitude of others and situational factors, can come between the intention and the decision.

A common term regarding measurements in a quantitative study is the *measurement validity*. The term brings up the concern whether or not a study actually measures what it is meant to measure (Bryman and Bell 2011, 42). In this study measurement validity is concerned with awareness, preference and purchase intention. Since the questionnaire (and the Digital Admap tool), is a service of the external company Inizio, it is out of this study's scope to investigate the measurement validity further.

4.2.4   Data Processing

The monitoring of the questionnaires and data processing are done together with the external company Inizio and their tool Digital Admap. The method used for both questionnaires and analysis is standardised, which is in line with May (2013, 121), and considered as a strength of the study. The Digital Admap identifies the brand's effect on the consumer, in mobile display advertising. In brief, the method compares the group that has been exposed to a campaign with a group that has not been exposed, thereof the six different respondent groups.

By comparing exposed and unexposed individuals, the tool can identify differences within the audience of the website that is part of the measurements - in this study Aftonbladet. Whether or not the individuals have been exposed for the campaign on other websites, or in other media channels, is unknown. The probability of exposure to the campaign material in other channels is however assumed to be the same between the two groups, which would increase the effect of the two groups equally. This means that the method allows the advertiser to derive the effects of one very specific advertising campaign, in one very specific channel, which has been Aftonbladet in this study. Hence, the effect of the mobile channel is isolated. This is considered to be a unique feature of the tool.

Calculating the Effects
The completed questionnaires are sent to a dataset and the awareness, preference and purchase intention are calculated for the six different sample groups. The unexposed group's effects will make up the reference values for each of the metrics, and it is calculated by taking the mean values of all the unexposed respondents.

As some people visit Aftonbladet more frequently than others, there is a potential need to adjust the numbers by weighing them. This is because the individuals in the exposed group, who visit Aftonbladet more frequently, are more likely to sympathise with the advertisement, since the advertisement is more "appropriate" for the website. Hence, the risk is higher gradings of the metrics. In effects, the adjustment is done with cell weighting that brings the usage of the website among the exposed group in line with the corresponding usage in the unexposed group.

If and when the data has been weighted, it is translated to match an index scale from 1-100 by letting 1=0, 2=17, 3=33, 4=50, 5=67, 6=83 and 7=100. This is done to simplify the interpretation of the effect, as people tend to be more familiar with a percentage scale from 0 to 100. When the data has been translated, the regression function is calculated. If this is to be visualised, the awareness, preference and purchase intention of each unique cookie-id would be scattered in plots. The plots show the relationship between the actual number of exposures as the independent variable (the horizontal axis) and the grading of the effect as the dependent variable (the vertical axis).

By using regression analysis and calculating the regression function, all the data in the scatter plot is taken into account. To get the average effect for each metric in the campaign, the mean frequency of the campaign is calculated. This is done by dividing the total number of impressions by the number of unique impressions. The average exposed value is then inserted in the regression function as the independent variable. The outcome of the dependent variable represents the average effect.

Limitations with the AdMap Tool
As with all tools, there are limitations and challenges. First, as already mentioned, there is always the chance that one person is exposed to the campaign on the measured website, but on a different device. Secondly, the tool uses a seven-graded scale, hence the calculated effects are in relation to the scale. To move a person on a two graded scale, for example from not likely to buy a product, to likely to buy is hard. To move one step on a seven-graded scale however takes less, which means effects are often identified. Then again, it would take even less to move a person one step on a hundred-grade scale. Therefore, it can be said that the choice of the scale influences the probability of effects being identified and the size of them. The seven-graded scale is chosen to get a satisfying user experience, as a larger scale would be inappropriate to the smaller screen of the smartphone.

Lastly, the statistical significance is not tested for each campaign. Tests have been done when the tool was developed and today it is said that using the same method brings statistically significance to the values.

4.2.5 Data Analysis

This study evaluates the campaigns by looking at how the four variables content type, product category, frequency and engagement rate affect the metrics awareness, preference and purchase intention. This has been done by analysing the variables from a number of different perspectives. First, the variables have been analysed on their own. For instance, the product category's impact on the three metrics has been analysed on its own, to see if that very variable can affect the metrics. Further, the variables have been combined and analysed together to see if

they show different tendencies. For example, the content type has been analysed in combination with the product category to find if the variables behave differently when grouped together.

The second part of the purpose is to find out if there is a relationship between the CTR and the three metrics. The analysis of the CTR has been done because of two reasons. First of all, the variables have been analysed together with the CTR in order to determine whether the campaigns in this study show the same tendencies as campaigns in other reports and papers. If the campaigns show the same tendencies, the external validity (Bryman and Bell 2011, 43) is assumed to be higher. Last, the CTR has been analysed together with the metrics, to find whether there is a relation between the study's metrics and the CTR or not. The metrics have, in this case, been aggregated in order to compare the CTR with the overall campaign effect.

When analysing two variables together, a common term is *internal validity* (Bryman and Bell 2011, 42-43). Internal validity concerns whether a conclusion that includes at least two variables in a causal relationship is valid or not. In this study the external validity refers to the variables' effect on the metrics. A high degree of internal validity indicates that the dependent variable has, to some extent, been affected by a variation in the independent variable. (Bryman and Bell 2011, 42-43)

4.3 Population and Sample

4.3.1 Population

The goal with a survey study is to draw conclusions for a population through answers from a sample, a process called *inference* (Andersen 1998, 122). With this in mind, it becomes important to make sure that the chosen sample has the same characteristics as the population and that the results are statistically significant. This creates a high degree of representativeness (May 2013, 123). The inference is related to *external validity*, which is the discussion of how well, or if, the results of a study can be generalised beyond the specific research context (Bryman and Bell 2011, 43). The study's representativeness and external validity is further discussed in *4.3.3 A Metodological Discussion on Sample and Population*.

This study's population is the visitors of Aftonbladet's mobile website, and with its 5.2 million unique visitors per week, it is the most visited Swedish mobile website (KIA-index, 2015). The five million unique visitors make up roughly half of Sweden's total population, and it is safe to say that Aftonbladet's readers make up a representative sample of the mobile media consumers in Sweden. The fact that Aftonbladet reaches a huge part of Sweden's inhabitants is considered a strength of the study.

The following tables represent the population of Aftonbladet's mobile website during the study, and are produced from a panel called Orvesto Internet. The panel includes 18,000 individuals, between the ages 16 and 80, and figures from the panel are updated monthly (TNS Sifo AB 2015a). The figures for Sweden as a whole are updated three times per year from Orvesto Consumer, which includes 16,000-17,000 respondents (TNS Sifo AB 2015b). The figures are taken from the month of March 2015, which is when the majority of the campaigns were launched. To put the readers of Aftonbladet in a context, the numbers are compared to the Swedish population. Lastly, it should be noted that the figures do not represent the time spent on the website, which means that some groups may spend more time on Aftonbladet's mobile website than others. Time spent could vary both within and between the tables. With more frequent visits, the reader becomes more likely to receive a questionnaire.

Table 2 shows that male visitors are slightly more common on Aftonbladet than female visitors. In comparison to the Swedish population, men are overrepresented on Aftonbladet while women are underrepresented. The visitors between 30-49 years represent the biggest share of Aftonbladet's visitors. They are also overrepresented compared to the Swedish population. The next biggest group of visitors are the individuals between 16 and 29 years, who are also overrepresented on Aftonbladet. The visitors between 50 and 64 years old are similar to the national Swedish numbers, while the individuals between 65 and 80 are underrepresented.

Table 2. Sex and age of the visitors of Aftonbladet's mobile website compared to the Swedish population in the month of March 2015

March 2015		
	Aftonbladet Mobile	Sweden
Sex	%	%
Male	54%	50%
Female	46%	50%
Total	100%	100%
Age	%	%
16-29	28%	23%
30-49	44%	34%
50-64	22%	24%
65-80	7%	19%
Total	100%	100%

Table 3 shows Aftonbladet's visitors divided per county. The readers of Aftonbladet's mobile website have almost the same distribution as the Swedish population, with Stockholm county being the only overrepresented group.

Table 3. The demographic distribution of the readers of Aftonbladet's mobile website compared to the Swedish population in the month of March 2015

March 2015		
	Aftonbladet Mobile	**Sweden**
County	%	%
Stockholms	25%	22%
Uppsala	4%	4%
Södermanlands	3%	3%
Östergötlands	4%	5%
Jönköpings	3%	4%
Kronobergs	2%	2%
Kalmar	2%	2%
Gotlands	1%	1%
Blekinge	1%	2%
Skånes	13%	13%
Hallands	3%	3%
Västra Götalands	17%	17%
Värmlands	3%	3%
Örebro	3%	3%
Västmanlands	3%	3%
Dalarnas	3%	3%
Gävleborgs	3%	3%
Västernorrlands	3%	3%
Jämtlands	1%	1%
Västerbottens	3%	3%
Norrbottens	3%	3%

4.3.2   Sample

The most common way for researchers to generate a representative sample is by using the process of random selection, meaning that every individual in the population has the same probability of inclusion in the sample (Bryman and Bell 2011, 165). Random selection is the sampling method used in this thesis, and it is taken care of by Inizio. According to May (2013, 123) the population should be specified in a list, called the sampling frame. The sample is then picked from the sampling frame, with help from either a computer program or a table of random numbers (May 2013, 123). This is never done actively in this thesis, which could be methodological weakness.

The sample group is picked from the population and questionnaires are randomly sent out to these devices. To guarantee the user experience of Aftonbladet, a questionnaire is only sent to a device once, per campaign. The approximately 400,000 impressions that are booked for each campaign are chosen in order to make sure the campaign is shown to a sufficient number of unique visitors, and in the end a sufficient number of respondents. With this number of impressions, the aim is to have at least 200 unexposed respondents per product, and 600 exposed respondents for each of the product's three campaigns. These numbers are chosen to get a sufficient number of respondents in each of the six sample groups.

The Table 4 shows the actual number of completed questionnaires for all ten advertised products. In total, the study received 35,982 completed questionnaires, which is considered as one of the thesis' major strengths. The number does not necessarily represent unique respondents, since an individual could have answered questionnaires over the different advertised products. A higher number of completed questionnaires means more reliable results, as the internal validity (Bryman and Bell 2011, 42-43) is strengthened. By having a large amount of respondents, conclusions can be drawn even when the differences between variables are small.

Table 4. The number of completed questionnaires for the unexposed group (Reference Value Group) and the number of accumulated completed questionnaires for the exposed groups (the five remaining sample groups)

Product Category	Campaign	Unexposed	Exposed	Total
Durable Goods	Automotive A	606	1184	1790
	Automotive B	203	3503	3706
	Financial Services	166	2309	2475
	Insurance Services	92	2694	2786
	Telecommunications A	619	2793	3412
	Telecommunications B	441	6555	6996
FMCGs	Coffee	139	2179	2318
	Fast food A	95	4711	4806
	Fast food B	669	2039	2708
	Margarine	125	4860	4985
Total		3155	32827	35982

The numbers in the column "Unexposed" are the number of completed questionnaires that represent the reference values in each campaign. The column "Exposed" show the total number of completed questionnaires for each product as a sum of the five sample groups: Static Banner: Exposed Value Group, Rich Media: Exposed Value Group, Rich Media: Engagement Value Group, Video: Exposed Value Group, Video: Engagement Value Group. A full list of completed questionnaires in each sample group can be found in Appendix B.

As can be seen there are differences in the numbers of completed questionnaires over the different advertised products. The intention was to capture the same number of respondents in all groups but due to difficulties with targeting and conditions of the questionnaires, this was not case. For each advertised product, the objective was to get 200 respondents in the "Reference Value" group and 600 respondents for each of the three campaigns. Looking at the unexposed groups in Table 4, five out of ten advertised brands reached the set goal of 200 respondents.

A further breakdown of Table 4 is found in Appendix B, in which it is revealed that nine out of ten products reached the predetermined goal of 600 respondents per Exposed Value Group. The Interaction Value Groups for the rich media and video campaigns are substantially lower. This is because the number of individuals who actually engage with the respective content is low, which is reflected by the number of completed questionnaires. When comparing the rich media engagement groups with the video engagements groups, the numbers show that the video engagements groups were the most difficult respondents to reach.

The number of completed questionnaires for the frequency analysis is found in Appendix C. The frequency ranges from (1) impression to (8+) impressions, meaning that individuals with more than eight impressions are clustered. This range was chosen to get sufficient number of completed questionnaires in each group to make the analysis. The decision to cluster the completed questionnaires at (8+) exposures was made since fewer individuals saw the campaigns as frequencies increased. The number of completed questionnaires is based on the exposed values and not the engagement values. Since this is the same data as in Table 4, but split up over frequency, some advertised products received more completed questionnaires than others. Last, regarding the frequency and the amount of respondents, found in Appendix C show on a clear negative relationship. As the number of exposures increased, the number of respondents decreased - hence lowering the internal validity (Bryman and Bell 2011, 42-43).

4.3.3 A Methodological Discussion on Sample and Population

As mentioned in *4.3.1 Population and Sample*, the study's population is the readers of Aftonbladet. May (2013, 121-122) states that it is important that the sample is representative for the population, in order to be able to draw conclusions. As seen in *4.3.2 Sample*, Aftonbladet's readers who are likely to have a smartphone (assumed to be aged 16-64) are in line with the national Swedish average. Men, and people from Stockholm county, are however overrepresented. Further, since the readers of Aftonbladet's mobile website have accessed the page from a mobile device, it is safe to say that they have access to a smartphone. Hence, the readers of Aftonbladet make a good proxy for individuals in Sweden with access to a smartphone. This is further supported by the fact that Aftonbladet's mobile website is the most visited in Sweden (KIA-index, 2015).

The study's sample is assumed to have the same characteristics as the readers of Aftonbladet, as questionnaires were sent out during their visit to the website. It is therefore safe to say that the study's sample share the same characteristics as the study's population - individuals in Sweden with access to a smartphone. With a large number of respondents, and with a sample similar to the population, the external validity is assumed to be high (Bryman and Bell 2011, 43).

5   Results

The following chapter presents the study's results. The study's ten different advertised products, and their three respective campaigns are found in the chapter.

5.1   The Campaigns

Below, the marketed products and their respective results are presented. As mentioned in *4.2 The Study*, all the ten advertised products were booked with approximately 1,200,000 impressions for one week. However, due to technical challenges all impressions were not delivered evenly over the period. Therefore, some campaigns had to be prioritised by the ad serving system. Some of these campaigns over delivered the number of impressions, in order to reach their goals, while others under performed. The exact number of delivered impressions is not utterly important for this study, but rather the number of completed questionnaires, since the awareness, preference and purchase intention are calculated from these. In total, 12,583,800 impressions were booked for all the ten marketed products, and 13,184,110 impressions were delivered.

All the tables below follow the same logic where the first part lists the sample groups and their calculated awareness, preference and purchase intention. The first row, the Reference Value, presents the value of the individuals who were unexposed of the product's three campaigns. The awareness, preference and purchase intention are listed in the three following columns. Below the reference value, the remaining five sample groups' awareness, preference and purchase intention are found. The Total Campaign is calculated with respect to all the five exposed groups. This value is not an average since it is calculated from all the data from all three campaigns. The second part contains information regarding the start and end date, the amount of actual impressions, the number of clicks and the calculated CTR.

5.1.1   Durable Goods

The durable goods category consists of six different products. Automotive includes two products, financial services include one product, insurance services include one product and telecommunications include two products.

Automotive A

The Automotive A is a large German car producer. The campaigns ran from 2015-03-23 to 2015-03-30 with a total 1,131,955 impressions. The Automotive A under delivered its booked number of impressions due to unknown technical difficulties, which was mostly caused by a low number of static banner impressions.

Table 5. The results of the Automotive A campaigns

Automotive A			
Sample Group	**Awareness**	**Preference**	**Purchase Intention**
Reference Value	88,4	44,4	16,5
Static Banner: Exposed Value	93,6	51,8	23,5
Rich Media: Exposed Value	92,7	49,1	19,8
Rich Media: Interaction Value	90,4	53,9	26,1
Video: Exposed Value	92,3	47,7	21,0
Video: Interaction Value	96,3	53,7	19,8
Total Campaign	92,8	50,1	21,5
	Static Banner	**Rich Media**	**Video**
Start Date	2015-03-23	2015-03-23	2015-03-23
End date	2015-03-30	2015-03-30	2015-03-30
Impressions	321 558	399 579	410 818
Clicks	884	916	479
CTR %	0,27	0,23	0,12

Automotive B

The Automotive B is a Chinese car producer. The campaigns ran from 2015-03-19 to 2015-03-25 and reached its goal of 400,000 impressions per campaign, giving the product a total of 1,265,072 impressions. The Automotive A campaigns were together with the Coffee and Margarine campaigns the first products to be launched. Even though the campaigns had been tested before the launch, it was discovered that the targeting conditions were not implemented correctly. For a couple of hours, consumers were able to load all three campaigns per product, and these had to be taken down and re-launched. This could potentially affect the results, but since it was discovered in time, the impact is expected to be low. Further, the Automotive A campaigns had to be prioritised to reach their booked number of impressions.

Table 6. The results of the Automotive B campaigns

Automotive B			
Sample Group	**Awareness**	**Preference**	**Purchase Intention**
Reference Value	94,5	62,1	31,0
Static Banner: Exposed Value	98,2	65,8	37,9
Rich Media: Exposed Value	98,9	66,8	36,4
Rich Media: Interaction Value	99,9	68,4	37,4
Video: Exposed Value	99,3	66,0	37,8
Video: Interaction Value	99,9	72,4	40,5
Total Campaign	98,9	66,4	37,4
	Static Banner	**Rich Media**	**Video**
Start Date	2015-03-19	2015-03-19	2015-03-19
End date	2015-03-25	2015-03-25	2015-03-25
Impressions	427 600	405 533	431 939
Clicks	1 246	1 189	616
CTR %	0,29	0,29	0,14

Financial Services

The Financial Services is a bank, offering a new savings account-product. The campaigns ran from 2015-04-01 to 2015-04-07 with a total of 1,203,637 impressions.

Table 7. The results of the Financial Services campaigns

Financial Services			
Sample Group	**Awareness**	**Preference**	**Purchase Intention**
Reference Value	56,0	24,5	13,0
Static Banner: Exposed Value	62,3	27,3	18,8
Rich Media: Exposed Value	64,1	29,6	19,3
Rich Media: Interaction Value	56,0	31,9	24,4
Video: Exposed Value	63,3	30,4	21,0
Video: Interaction Value	66,3	27,3	14,8
Total Campaign	63,1	29,1	19,7
	Static Banner	**Rich Media**	**Video**
Start Date	2015-04-01	2015-04-01	2015-04-01
End date	2015-04-07	2015-04-07	2015-04-07
Impressions	401 170	401 213	401 254
Clicks	1 371	1 097	662
CTR %	0,34	0,27	0,16

Insurance Services

The Insurances Services is a Swedish insurance company offering a new insurance service for towing broken cars. The campaigns ran from 2015-03-26 to 2015-04-01, with a total of 1,227,005 impressions. These campaigns had problems with delivering their impressions and had to be prioritised by the ad serving system. The reason behind this remains unknown, but the campaigns eventually reached their goals.

Table 8. The results of the Insurance Services campaigns

Insurance Services			
Sample Group	**Awareness**	**Preference**	**Purchase Intention**
Reference Value	80,6	42,6	28,7
Static Banner: Exposed Value	81,5	45,6	32,0
Rich Media: Exposed Value	84,6	47,4	32,2
Rich Media: Interaction Value	87,3	50,0	38,8
Video: Exposed Value	83,1	43,4	29,1
Video: Interaction Value	80,6	42,6	28,7
Total Campaign	83,2	45,5	31,2
	Static Banner	**Rich Media**	**Video**
Start Date	2015-03-26	2015-03-26	2015-03-26
End date	2015-04-01	2015-04-01	2015-04-01
Impressions	408 990	409 058	408 957
Clicks	1 187	1 222	746
CTR %	0,29	0,30	0,18

Telecommunications A

The Telecommunications A campaign is a Swedish low-cost cell provider advertising their new telephone subscription. The campaign ran from 2015-04-09 to 2014-04-15 with a total of 1,203,597 impressions.

Table 9. The results of the Telecommunications A campaigns

Telecommunications A			
Sample Group	**Awareness**	**Preference**	**Purchase Intention**
Reference Value	84,8	40,2	16,3
Static Banner: Exposed Value	89,4	48,5	28,2
Rich Media: Exposed Value	88,0	44,3	27,8
Rich Media: Interaction Value	95,6	53,8	37,1
Video: Exposed Value	88,7	46,0	26,3
Video: Interaction Value	86,6	40,1	20,1
Total Campaign	88,9	46,5	27,7
	Static Banner	**Rich Media**	**Video**
Start Date	2015-04-09	2015-04-09	2015-04-09
End date	2015-04-15	2015-04-15	2015-04-15
Impressions	401 185	401 214	401 198
Clicks	1 080	1 042	480
CTR %	0,27	0,26	0,12

Telecommunications B

The Telecommunications B is a Swedish phone provider offering services within regular phone, mobile phone, broadband and similar products. The campaigns ran between 2015-04-13 and 2015-04-16 for the static banner and rich media, and between 2014-04-13 and 2014-04-30 for the video. The campaigns delivered a total of 2,698,375 impressions. The reason behind the larger amount of impressions is that the video campaign was part of another, larger campaign.

Table 10. The results of the Telecommunications B campaigns

Telecommunications B			
Sample Group	**Awareness**	**Preference**	**Purchase Intention**
Reference Value	92,8	51,1	31,6
Static Banner: Exposed Value	95,8	55,5	35,1
Rich Media: Exposed Value	95,7	55,0	35,4
Rich Media: Interaction Value	97,6	52,0	32,7
Video: Exposed Value	95,8	55,3	35,2
Video: Interaction Value	n/a	n/a	n/a
Total Campaign	95,8	55,2	35,1
	Static Banner	**Rich Media**	**Video**
Start Date	2015-04-13	2015-04-13	2015-04-13
End date	2015-04-16	2015-04-16	2015-04-30
Impressions	401 372	401 401	1 895 602
Clicks	1 377	1 306	3 196
CTR %	0,34	0,33	0,17

5.1.2 Fast Moving Consumer Goods

The FMCGs consists of four different products: a coffee product, two fast food products and a margarine product.

Coffee

The Coffee product was advertised by a large Swedish coffee company. The campaigns ran from 2015-03-19 to 2015-03-26 and generated a total of 1,028,819 impressions. As mentioned, the Coffee campaigns had the same problems as Automotive B and Margarine. For the Coffee campaigns these implications resulted in an under delivery of impressions. The reason remains unknown.

Table 11. The results of the Coffee campaigns

Coffee			
Sample Group	**Awareness**	**Preference**	**Purchase Intention**
Reference Value	60,4	34,6	27,2
Static Banner: Exposed Value	63,9	49,5	41,1
Rich Media: Exposed Value	63,1	46,0	39,5
Rich Media: Interaction Value	67,4	34,6	29,0
Video: Exposed Value	66,9	49,9	41,7
Video: Interaction Value	88,9	69,5	62,1
Total Campaign	64,8	48,2	40,6
	Static Banner	**Rich Media**	**Video**
Start Date	2015-03-19	2015-03-19	2015-03-19
End date	2015-03-26	2015-03-26	2015-03-26
Impressions	325 342	386 622	316 855
Clicks	806	746	308
CTR %	0,25	0,19	0,10

Fast Food A

The Fast Food A company advertised their newly priced fast food products. The campaigns ran from 2015-03-26 to 2015-04-01 and generated 1,216,456 impressions. The delivery of impressions started off slow, but after a prioritisation in the ad serving system, the campaigns almost delivered all the impressions before the end date. Because of this, only a few thousand impressions were delivered in the last three days.

Table 12. The results of the Fast Food A campaigns

Fast Food A			
Sample Group	**Awareness**	**Preference**	**Purchase Intention**
Reference Value	90,7	48,0	33,3
Static Banner: Exposed Value	95,9	54,5	39,7
Rich Media: Exposed Value	95,4	52,1	37,4
Rich Media: Interaction Value	99,2	56,8	43,4
Video: Exposed Value	93,8	50,7	36,0
Video: Interaction Value	99,3	57,9	46,4
Total Campaign	64,8	48,2	40,6
	Static Banner	**Rich Media**	**Video**
Start Date	2015-03-26	2015-03-26	2015-03-26
End date	2015-04-01	2015-04-01	2015-04-01
Impressions	406 427	405 020	405 009
Clicks	1 080	968	615
CTR %	0,27	0,24	0,15

Fast Food B

The Fast Food B company advertised their new hamburger. The campaigns ran between 2015-03-31 and 2015-04-06 with a total of 1,005,173 impressions. The Fast Food B campaigns were booked with a total of 1,000,000 impressions and reached their goal during the campaign period.

Table 13. The results of the Fast Food B campaigns

Fast Food B			
Sample Group	**Awareness**	**Preference**	**Purchase Intention**
Reference Value	93,3	67,9	47,8
Static Banner: Exposed Value	96,9	69,3	50,4
Rich Media: Exposed Value	96,4	72,0	51,1
Rich Media: Interaction Value	93,3	67,9	47,8
Video: Exposed Value	97,2	70,0	49,8
Video: Interaction Value	93,3	67,9	56,4
Total Campaign	96,7	70,3	50,4
	Static Banner	**Rich Media**	**Video**
Start Date	2015-03-31	2015-03-31	2015-03-31
End date	2015-04-06	2015-04-06	2015-04-06
Impressions	334 396	335 466	335 311
Clicks	614	983	557
CTR %	0,18	0,29	0,17

Margarine

The Margarine product is owned by one of the world's largest consumer goods companies, which advertised their new margarine product. The campaigns ran from 2015-03-19 to 2015-03-25 with total of 1,204,021 impression. The campaigns reached their goal despite the mentioned problems with targeting conditions.

Table 14. The results of the Margarine campaigns

Margarine			
Sample Group	**Awareness**	**Preference**	**Purchase Intention**
Reference Value	82,5	38,4	34,2
Static Banner: Exposed Value	85,9	42,6	37,2
Rich Media: Exposed Value	85,9	44,1	38,5
Rich Media: Interaction Value	82,5	38,4	34,2
Video: Exposed Value	86,5	44,1	39,5
Video: Interaction Value	83,4	45,6	43,8
Total Campaign	86,1	43,5	38,3
	Static Banner	**Rich Media**	**Video**
Start Date	2015-03-19	2015-03-19	2015-03-19
End date	2015-03-25	2015-03-25	2015-03-25
Impressions	401 402	401 253	401 366
Clicks	1 126	1 088	479
CTR %	0,28	0,27	0,12

6 Analysis and Discussion

The chapter Analysis and Discussion presents the calculated effects together with the variables. The first section starts by looking solely at product category, content type, frequency and engagement respectively. At the same time, when applicable, CTR is analysed with respect to the different variables. Thereafter, combinations of the thesis' variables are analysed, in order to reveal potential deviations and additional findings. Last of all, CTR is analysed with respect to the thesis' metrics. The number of completed questionnaires for each analysis can be found in Appendix D.
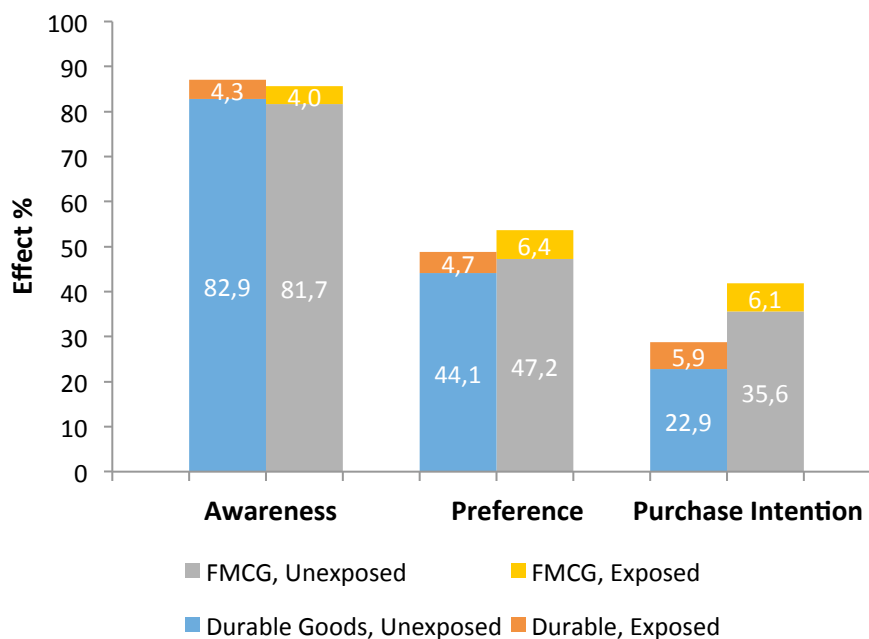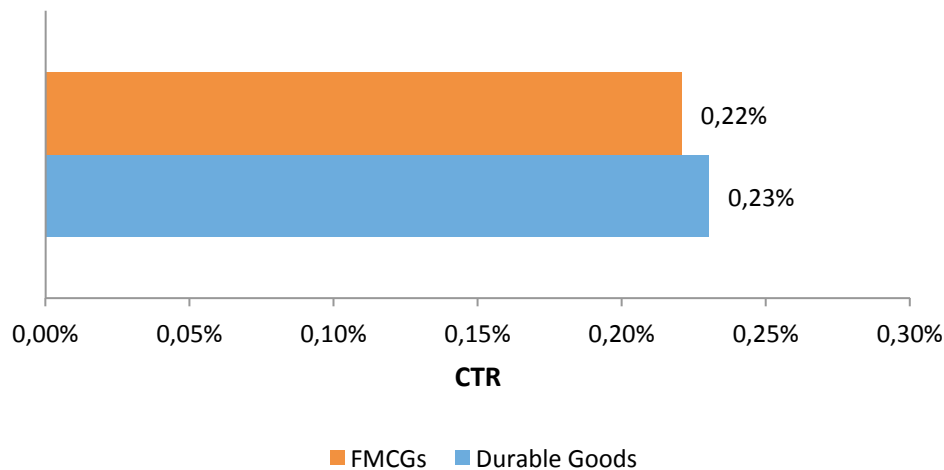
6.1 Product Category

Figure 12. The increase in effects for the two product categories

Figure 12 presents the two product categories, their reference values and the increase in effect for the exposed groups. These values are based on the total campaign figures, including all of the five sample groups. The findings suggest that being exposed to an advertisement for durable goods leads to a slightly higher increase in awareness, compared to FMCGs (4.3 % to 4.0 %). On the other hand, FMCGs show a greater increase in preference and purchase intention, when being exposed for an advertisement. The increase in preference and purchase intention are in line with Rampier (2012, 59). Rampier (2012, 59) claims that switching between brands, within FMCGs, can be induced by heavy advertising and does not

require any deeper processing of the message. The fact that these products are related with a lower risk (Hardy et al. 2009 162) explains why it is easier to change the preferences for a consumer within FMCGs. Further, involvement, as discussed by Solomon et al. (2006, 105-106) can possibly affect the outcome. Especially personal factors, such as needs, could potentially explain why FMCGs perform better when it comes to preference and purchase intention. The need for food, which has been advertised within FMCGs, is assumed to have greater impact than the need for a car, which has been advertised as a durable good.

However, the findings are opposite of Bart, Stephen and Sarvary (2014) who claim that low involvement products, such as FMCGs, cannot be marketed efficiently in the mobile channel. Since all the metrics have increased, the study show that both product categories can be marketed in the channel. Depending on the marketing objective, the two product categories are expected to perform differently. If the primary objective with an advertisement drive is to increase the awareness, such as in the case with a new brand, durable goods are found more suitable for the mobile channel. On the other hand, if the primary goal is to increase sales, FMCGs are better suited for advertising in the mobile channel.

13. The CTR for the two product categories

Durable goods show a slightly higher CTR than FMCGs, as seen in Figure 13, with 0.23 % and 0.22 % respectively. This can be compared to MediaMind (2013), in which consumer packed goods' CTR is 0.31 % and durable goods have an average CTR of 0.20 %. Hence, the CTR values for durable goods are comparable between this study and MediaMind (2013), but not as comparable for FMCGs.
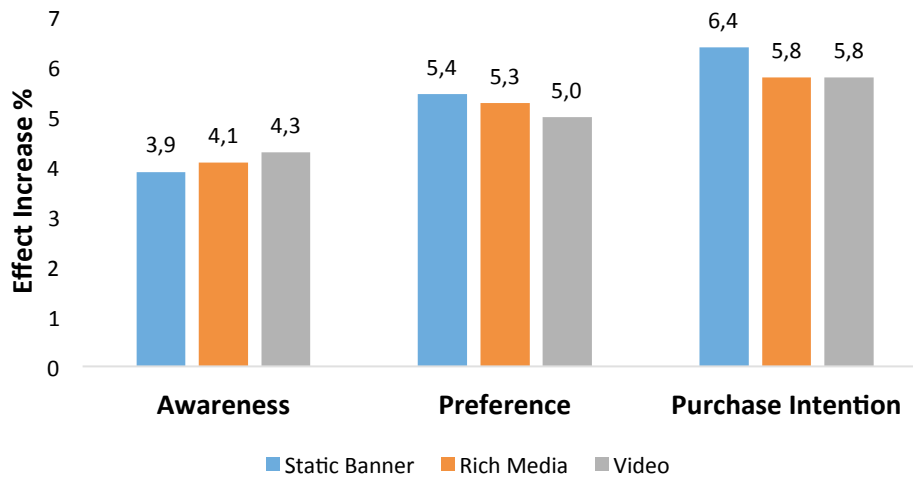
6.2 Content Type

Figure 14. The increase in effects for the three content types

The bar chart in Figure 14, shows the increase of the three metrics over the three different content types. The reference values for awareness (82.4 %), preference (45.4 %) and purchase intention (28.0 %) are the same regardless of content type, and the chart visualises the increase in the effects beyond these reference values. The numbers are based on the Exposed Value Groups of the static banner, rich media and video.

Regarding the content type and its impact on the metrics, video shows the greatest increase in awareness. Static banner on the other hand shows the greatest increase when looking at both preference and purchase intention. This could potentially have to do with Fogg's (2009) theory on the trigger. The static banner contains only one image, in which the message is presented directly to the consumer. The rich media and the video have, by their nature, the ability to be more informative, but the information is revealed first when the consumer engages with the ad. As the individuals in Figure 14 have not actively engaged, i.e. played the video or swiped the cube, the full message has not been delivered. These findings are opposite of Solomon et al. (2006, 49) who claims that an advertisement which is in contrast to its surroundings, catch a consumer's attention. None of the findings of Choi et al. (2001, cited in Rosenkrans, 4) are in line with this study's results. Choi et al. (2001, cited in Rosenkrans, 4) claim that ads which draw attention can lead to more positive attitudes and increase purchase intention. Even though the spin cube automatically rotates, and the video shows a preview, this seems not to be the case.
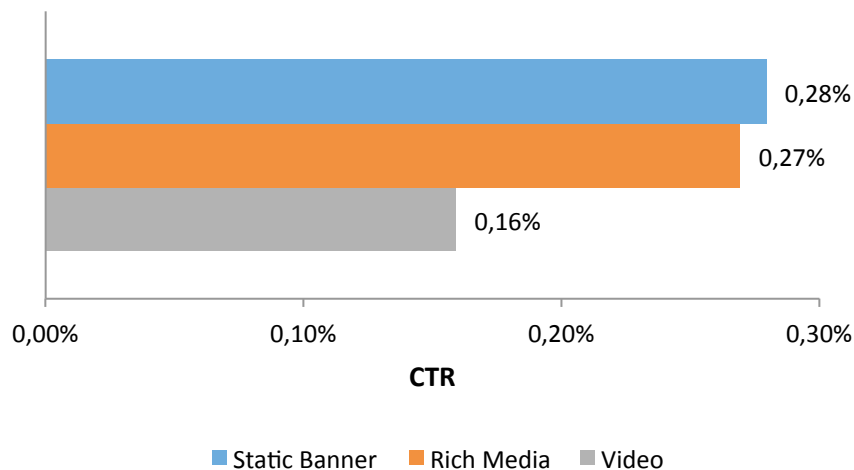
Figure 15. The CTR for the three content types

The bar chart in Figure 15 shows the CTR for the different content types. The static banner with a CTR of 0.28 % is followed by the rich media with a CTR of 0.27 %, and the difference is only marginal. The video content on the other hand has a CTR of 0.16 %. Compared to Pointroll (2014a), the rich media campaigns in this study have generated slightly higher CTR values.

The fact that the static banner shows a higher CTR than the rich media and video content is in line with Medialets (2014) findings, stating that the static banner is the best format if you want to drive the consumers to an external landing page. Rosenkrans' (2009, 3) on the other hand claims that rich media leads to a greater involvement, which in turn can generate a higher CTR than the static banner. Rosenkrans' (2009, 3) findings are not supported in this study.

Pointroll (2014b) concludes that CTR is an unfair metric for the rich media content when comparing to the static banner, because the static banner is more likely to be clicked on. This could also be the case for video. The CTR excludes the engagement possibilities of the rich media solution, and the lower CTR for a rich media content is not comparable with the higher CTR of a static banner (Pointroll 2014b). None of Pointroll's (2014b) findings are supported in this study, where the results show no significant difference between the two content types' CTRs.
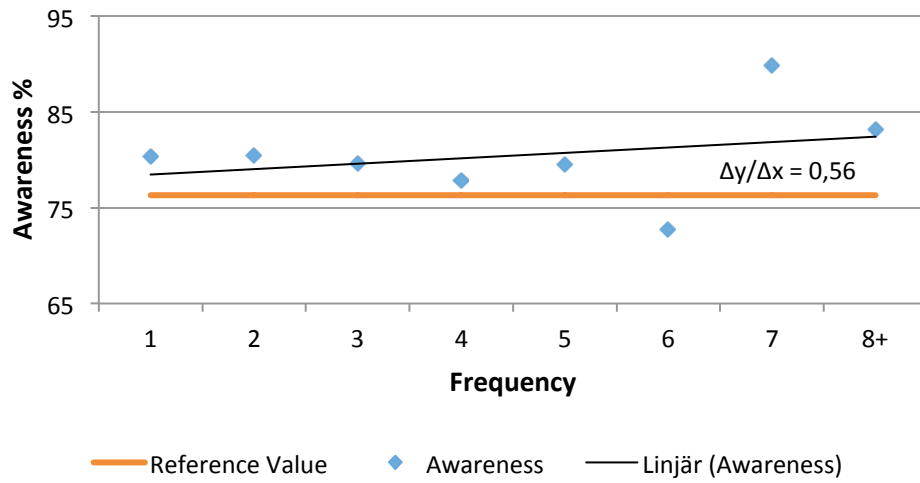
6.3 Frequency

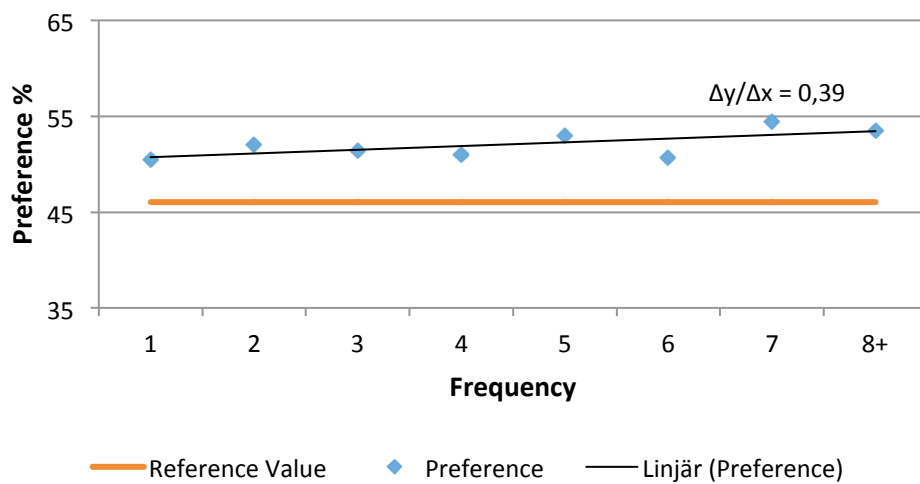

Figure 16. Awareness in relation to frequency

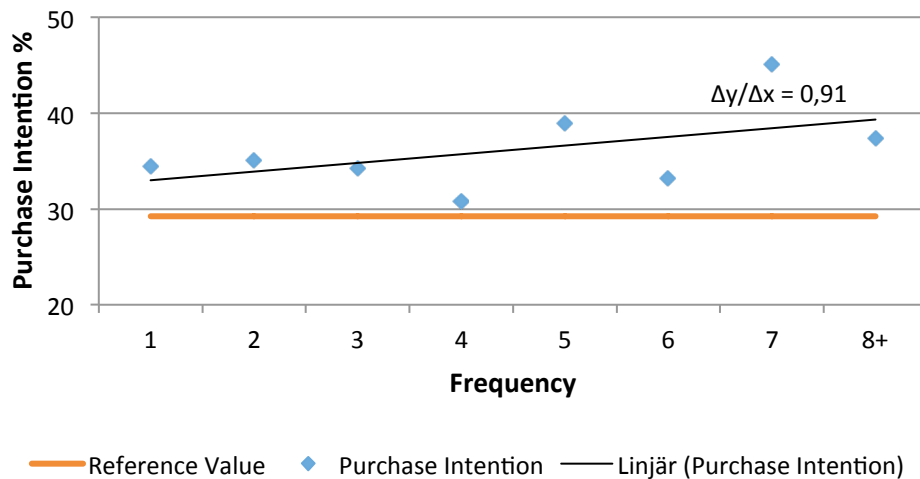Figure 17. Preference in relation to frequency

Figure 18. Purchase intention in relation to frequency

The data points in each chart, presented in Figure 16, Figure 17 and Figure 18, represent the effect in relation to the frequency. The horizontal line is the reference value. These values are based on the Exposed Value Groups of the static banner, rich media and video content. Looking at the three charts, all the metrics show the same tendencies from (1) exposure to (3) exposures. Awareness, preference and purchase intention remains at somewhat constant levels within this range. However, between (4) to (8+) the scatter plots start to fluctuate and they all peak at (7) exposures. A theoretical approach to the fluctuation can potentially be explained by Solomon et al. (2006, 184), in which it is stated that there is a fine line between being bored with the advertisement (Solomon et al. 2006, 48) and being positively affected by the mere exposure (Hoyer and MacInnis 2008, 156). This trade-off is visualised in Figure 8. However, Figure 8 is assumed to show a simplified version of the reality.

In some of the charts, the scattered value falls below both the value of the first exposure, such as in purchase intention, and the reference value, such as in awareness. This does not necessarily mean that an increasing number of exposures leads to a negative effect, but is more likely a consequence of a sample effect. Here, respondents who saw the advertisement with that frequency just happened to be less aware of the product. It should also be stated that the frequency groups are independent of each other, meaning that one unique individual can only be represented in one of the frequency groups.

All plots show a tendency of higher metrics as the number of exposures increase, which could be explained by the mere exposure phenomenon (Hoyer and MacInnis 2008, 156). The data shows that in order to reach the highest levels of awareness, preference and purchase intention each unique visitor should load an ad (7) times. These findings are not necessarily in line with Krugman (1986, cited in Solomon et al.

2006, 68) who claims that more than three true exposures are wasted, compared to the (7) impressions found in this study.

Impressions, which underlie the frequency variable, has however a number of limitations. First, as Rowles (2013) states, there is no guarantee that an impression is seen by the reader, as the ad can be loaded below the fold (which is where Aftonbladet's second interstitial is found). Further, as consumers are selective to what they pay attention (Solomon 2006, 47), a viewer might as well not notice the ad. Since there is no established and implemented way of how to ensure that a consumer is truly exposed, the number of (7) impressions per unique device should be regarded as a guideline if the objective is to reach the highest effects.

While (7) exposures have given the highest effects, (6) exposures have given a fairly low value. Both of the groups who saw the ad (6) and (7) times could be subjects to the sample effect, meaning that these individuals by chance happen to have a higher, respectively lower awareness, preference and purchase intention. However, in contrary to (6) impressions, the (7) impressions are supported by the trend line of the scatter plot and the respondents who were exposed (8+) times. The number of completed questionnaires was the third largest for the group of (8+) exposures.

Looking at the trend lines for the scatter plots respectively, the gradient ($\Delta y/\Delta x$) differs for each of the metrics. Awareness is expected to increase with 0.56 % per exposure, increasing the consumer's awareness with 5.6 % per (10) exposures. Preference is expected to increase with 0.39 % per exposure, increasing the consumer's preference with 3.9 % per (10) exposures. Last, purchase intention is expected to increase with 0.91 % per exposure, increasing the consumer's purchase intention with 9.1 % per (10) exposures. The implication of this is that purchase intention is the easiest metric to affect with mere exposure.

Since all the gradients are positive, it seems to pay off to work with a higher number of impressions per unique device. The question however is how to maximise the value creation per impression. For a fixed number of impressions, a campaign can either focus on many unique individuals, giving them a low frequency, or on a set group of individuals a repeated number of times, placing them in the high frequency range.

6.4 Engagement

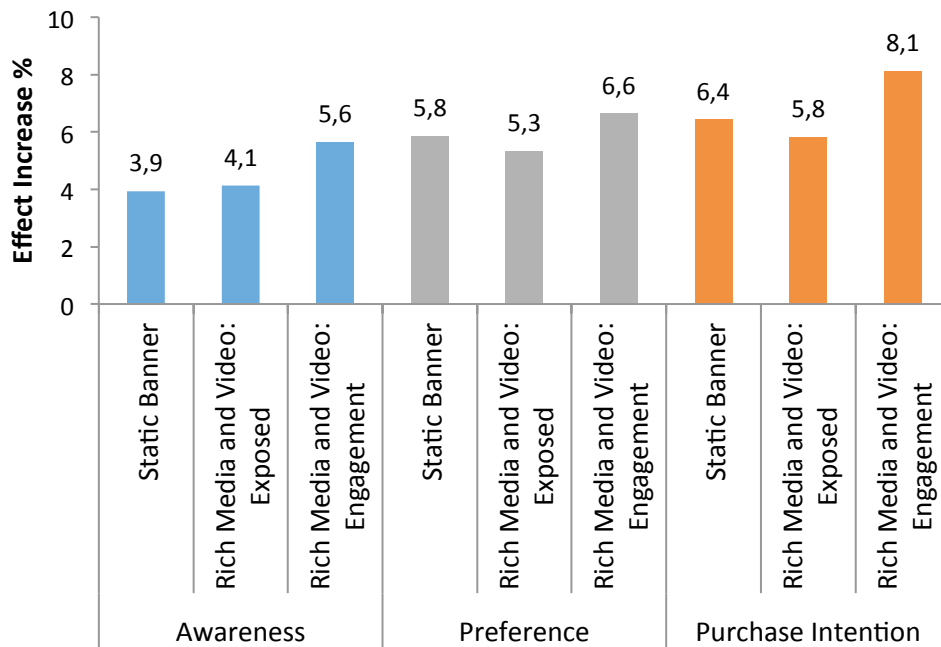### 6.4.1 Accumulated Engagement

Figure 19. Accumulated effect for static banner, rich media and video: exposed, and rich media and video: engagement

Figure 19 shows the metrics for people who have been exposed to static banner, been exposed to rich media and video, and have engaged with rich media or played the video. The figures are based on all the five sample groups where the Engagement Value Groups of rich media and video have been clustered. The figures from the Static Banner: Exposed Value Group are included to make additional comparisons.

As seen, there is a relation between engagement and a higher degree of awareness, preference and purchase intention. The implication of this can be twofold. First, Rosenkrans (2009) claims that rich media can lead to a greater user involvement, which in turn could explain the findings in this study. However, the Rosser Reeves' Fallacy (Pringle and Field 2008, 131; Petit 2005; 350) must be taken into account. People who are aware of a brand are also more likely to notice its advertisements, and will likely engage with its rich media or video campaigns. Hence, the internal validity (Bryman and Bell 2011, 42-43) of the engagement's effect on the metrics is lower, compared to the other variables in the study.

Even though the Rosser Reeves' fallacy is present in the discussion, the relation between engagement and the metrics is of great interest. As people are assumed to have a number of products on their mind, they will likely be willing to engage with a rich media advertisement, or watch a video for one or all of these products. Hence, people with an already high awareness, preference and purchase intention of a product are more likely to engage with the advertisement. The advertisement becomes a direct a channel to address those individuals who are already interested since this is the group of individuals that the campaign aims to reach. The discussion is therefore not about the engagement's effect on the metrics, but rather how to capitalise on the fact that the two are correlated, and how increase the number of individuals who engage with the advertisement.

This study cannot draw any significant conclusions on how well engagement per se affects the metrics, just state that the two are correlated. Because of this, the two content types that allow for engagement will be compared in relation to each other.

6.4.2 Rich Media and Video Engagement
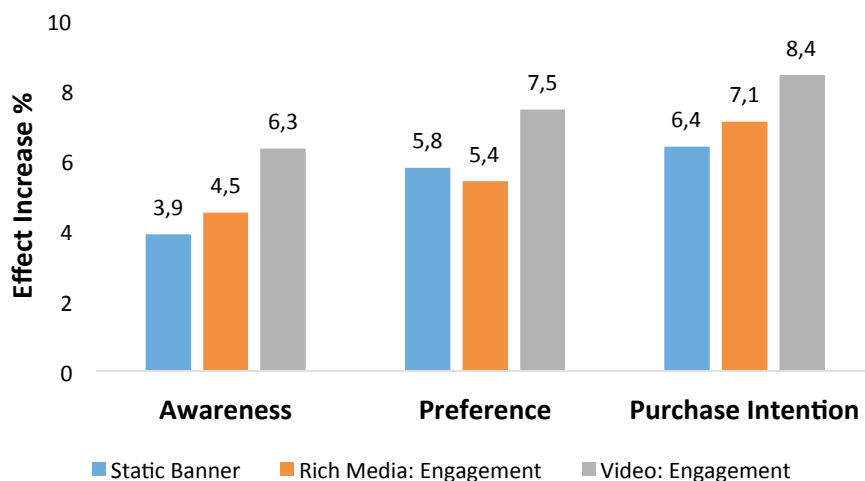
Figure 20. The increase in effect for the different content types with respect to engagement

Rosser Reeves' Fallacy (Field and Pringle 2008, 131; Petit 2005; 350) is assumed to make people who are aware of a brand to interact with its rich media and video. It is therefore hard to draw conclusion on how interaction per se affect the metrics. However, the fallacy is assumed to have the same impact on both the video campaign and the rich media campaign. This means that chances are equal that someone who is aware of a brand has the same motivation to play the video, as it is that someone else, with the same awareness, is motivated to engage with the rich

media. Since the two content types are equal subjects to the fallacy, comparisons between the two are possible.

Figure 20 shows a comparison between the effects of being exposed to static banner, engaging with the rich media and engaging with the video. The static banner, which has only been loaded, is used as a reference. Regarding awareness, video engagement increases the metric with 6.3 %, compared to an increase of 4.5 % for rich media. Both are, as expected, higher than the effects of the static banner. Looking at preference, an engagement with the rich media campaign had a lower effect (5.4 %) than being exposed for a static banner (5,8%). Playing the video however increases the preference with 7.5 %. Last, engaging with the rich media campaign increases the purchase intention with 7.1 %, compared to 6.4 % for a static banner. Engaging with the video increases the purchase intention with 8.4 %. Since both rich media and video are subjects to the Rosser Reeves' fallacy, the results show that video increases the metrics better than rich media.

6.5 Combinations of the Variables

6.5.1 Product Category and Content Type
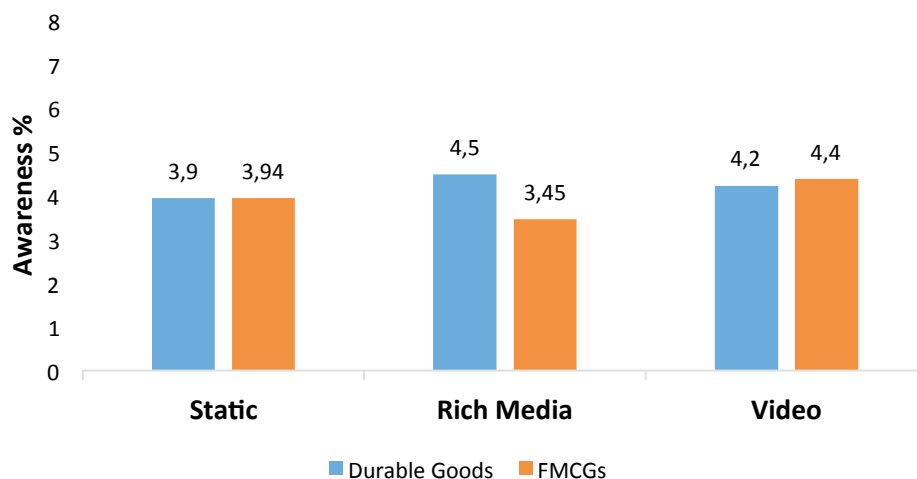
Figure 21. Increase in awareness for the three content types with respect to product category
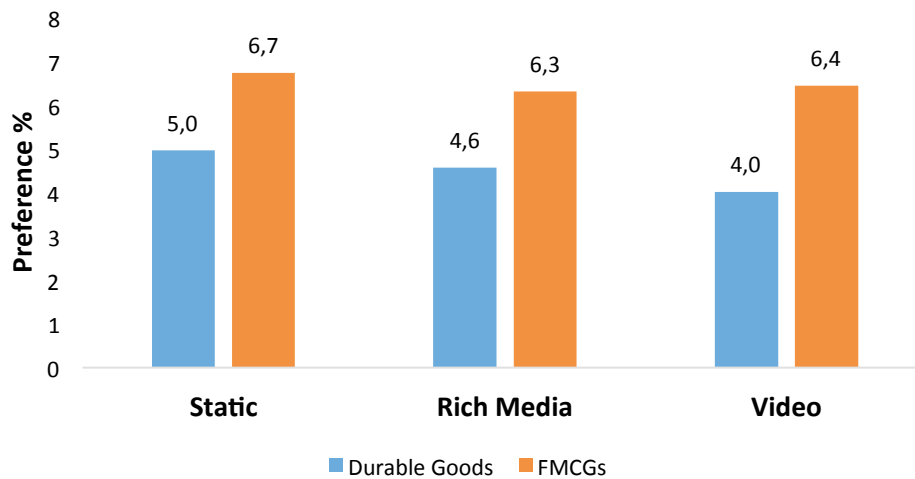
Figure 22. Increase in preference for the three content types with respect to product category
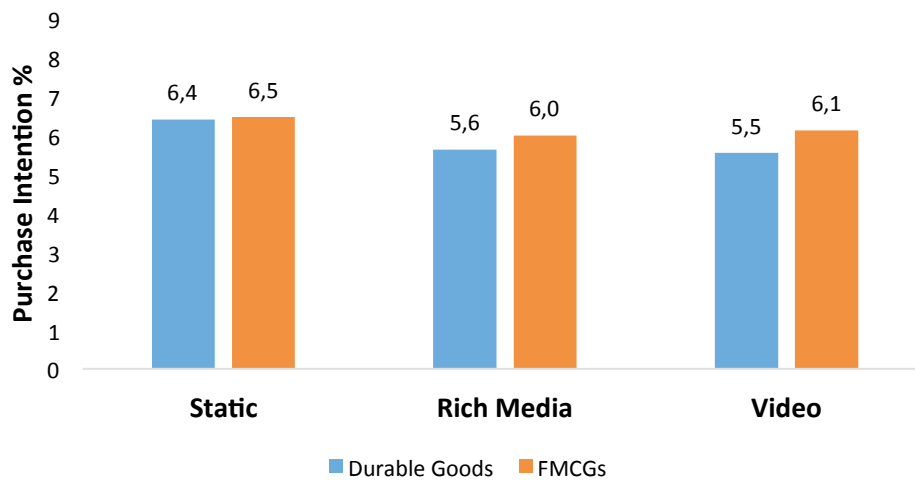
Figure 23. Increase in preference for the three content types with respect to product category

In *6.1 Product Category*, the product category was analysed on its own, in order to see if the two categories perform differently. In *6.2 Content Type* the same was done for the content types, to see how static banner, rich media and video affect the metrics. To break it down even further, the following section investigates how these two variables perform together.

Figure 21, Figure 22 and Figure 23, show each metric over content type and product category. Starting with the awareness, there is no difference in effect for the static banner contents, while the durable goods show a higher effect for rich media contents and the FMCGs a higher effect with the video content. For the preference and purchase intention, the FMCGs have higher effects over all three content types. What is also true for the preference and purchase intention, is that the static banner has the highest effect for both product categories.

In *6.1 Product Category* it was stated that awareness increased more when being exposed to a durable good than FMCGs. By breaking it down a level, it has been shown that especially rich media increases the awareness for durable goods. Looking at FMCGs, it has been shown that all three content types increase preference and purchase intention more, than for durable goods.

In *6.2 Content Type* the results show that video content has the highest awareness effect, while the static banner performed better in both preference and purchase intention. When combining the product categories and content types, the findings still suggest that the static banner outperforms the other content types when it comes to driving preference and purchase intention. This is true for both FMCGs and Durable goods. Looking at awareness, rich media has the highest effect for durable goods, while video has the highest effect for FMCGs.
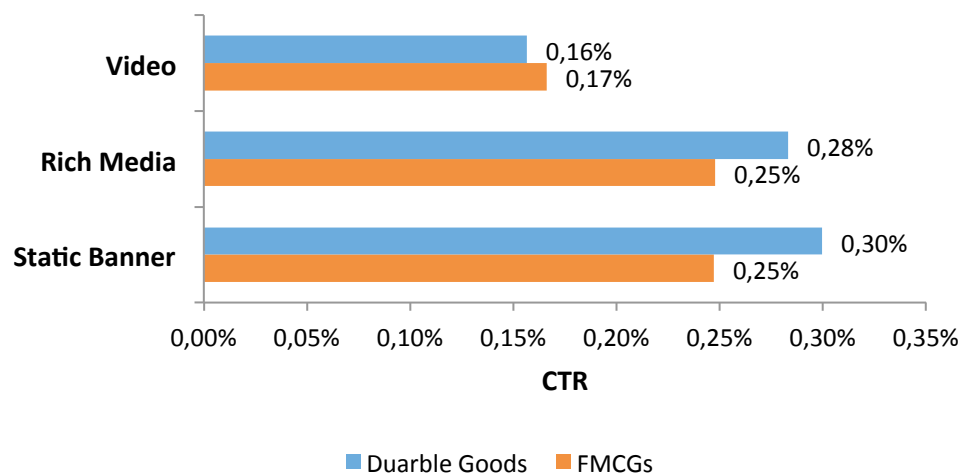
Figure 24. CTR for the different content types with respect to the product categories

Figure 24, shows the CTRs for the content types with respect to the product categories. The results are in line with the ones in *6.1 Product Category* and *6.2 Content Type*. For the durable goods product the CTR is lower for the video content but higher for the rich media and static banner. For the three content types, the

static banner content have the highest CTR, just followed by the rich media and with the video having the lowest CTR.

6.5.2 Frequency and Content Type
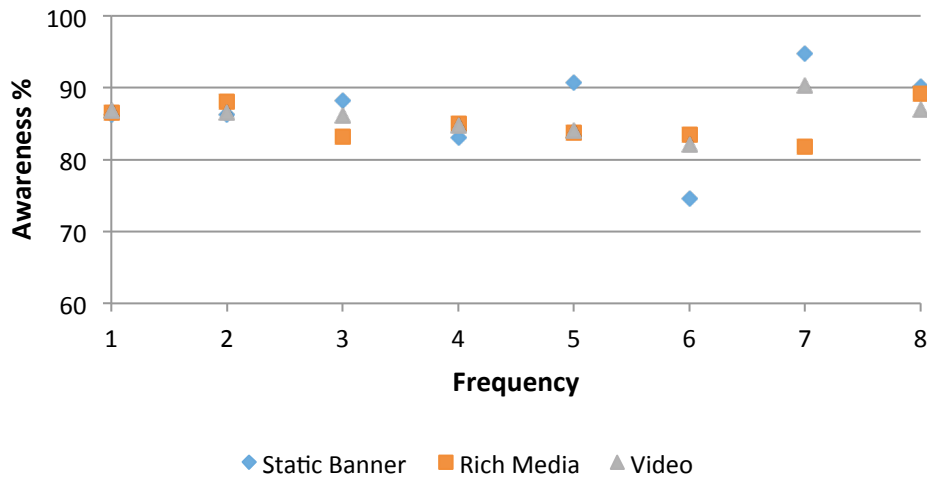
Figure 25. Awareness in relation to frequency with respect to the content types
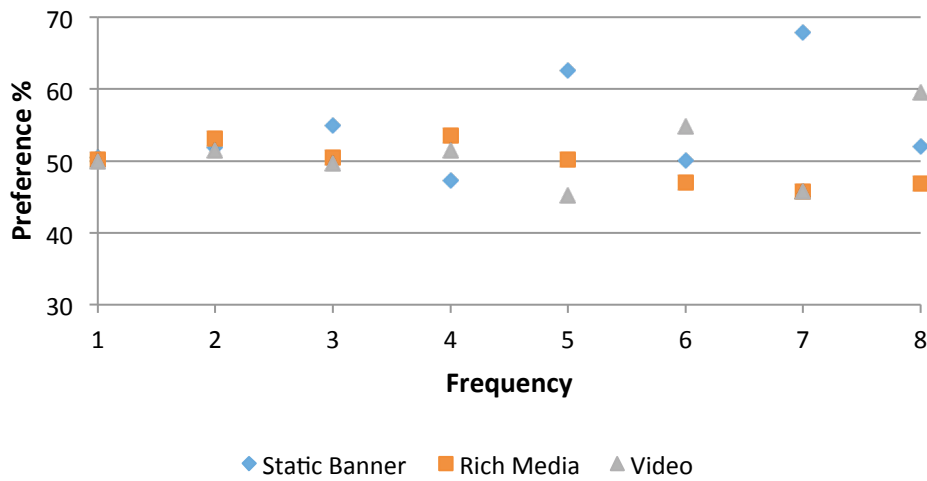
Figure 26. Preference in relation to frequency with respect to the content types
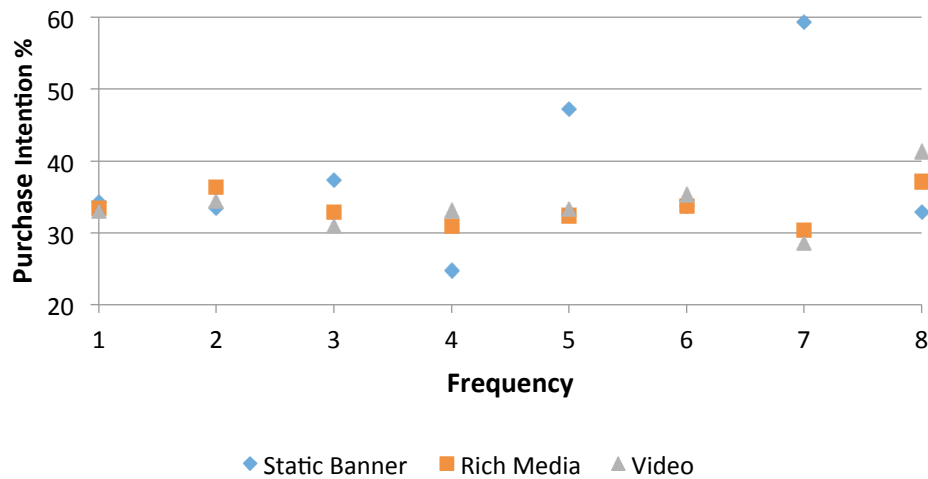
Figure 27. Preference in relation to frequency with respect to the content types

Figure 25, Figure 26 and Figure 27, show how frequency, per content type, affects awareness, preference and purchase intention respectively. Reference values for each of the content types are not included since they are discussed in *6.3 Frequency*.

For all three metrics, the rich media and video show similarities in the results. However, at higher frequencies the video content shows slightly higher effects. In the frequency interval (1) to (3), the static banner follows a uniformed path together with the rich media and video, but then starts to fluctuate. The static banner hits its peak at (7) unique impressions, for all three metrics. The rich media content peaks at (8) unique impressions for the awareness and purchase intention, and (4) impressions for preference. The video content is the most effective at (7) impressions for awareness and (8) impressions for preference and purchase intention respectively. Further, by looking at the data points, a supposed gradient for rich media and video is almost neutral - meaning that an increased amount of exposures has little or no impact on the metrics.

It was stated in *6.3 Frequency* that (7) seems to be the frequency when awareness, preference and purchase intention is the highest. When the metrics now have been analysed with respect to both frequency and content type, it has been shown that especially static banner is an outlier and brings up the metrics. It is, as seen in Appendix C, also this group which has the lowest number of completed questionnaires.

6.6 CTR

The analysis of CTR is done because of two reasons. First, the variables have been analysed together with the CTR in order to be able to compare the results with previous studies. This has been done throughout the sections above. To summarise the findings above, durable goods show the same tendencies as MediaMind (2013), but the FMCGs in this study show a lower CTR. Further, Medialets (2014) and Pointroll (2014b) states that static banners have higher CTR than rich media, which is also a finding in this study. Hence, it seems like the results from this study are similar to previous publications on the topic, and the fact that the CTR values are similar to other studies increases the external validity.

Second, the CTR is to be analysed together with the metrics awareness, preference and purchase intention to find if there is a relation between them. Figure 28 shows the CTR of all the content types on the horizontal axis together with the average of the three effects from all the sample groups, on the vertical axis. Note that this is the only time an average has been calculated for all the metrics, but since the three effects are weighted equally, the average represents the overall performance.
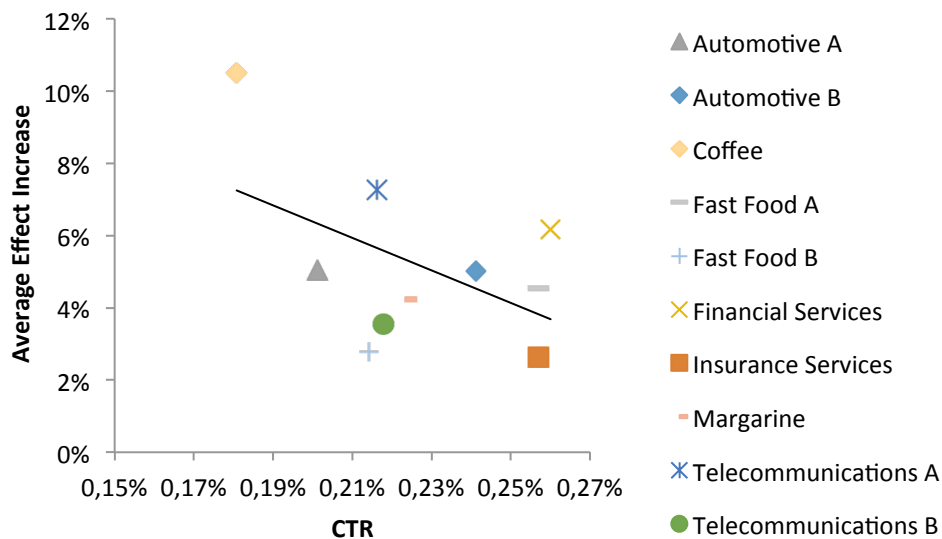
Figure 28. The ten marketed products average effect increase in relation to CTR

Centred in the scatter plot are all the advertised products, with the Coffee campaign being the only one deviating heavily from the centre. The Coffee campaign is the campaign with the highest average increase of effects, but also with the lowest CTR. On the other hand, the Insurance Services campaign is among the campaigns with the highest CTR, but with the lowest increase of effect. The Financial Services

campaign has the third highest average increase in the metrics, and among the highest CTR.

The gradient of the linear trend line in the scatter plot is negative. This has mostly to do with the fact that the Coffee campaign has a high average increase of the metrics, but a low CTR, and becomes an outlier. A theoretical trend line over all the other marketed products, excluding the Coffee Campaign, would create a gradient with the value close to 0. However, there are no indications that the data from the Coffee campaign is corrupt.

6.6.1   CTR and Content Types

Since the study has shown that there is a difference in CTR between the three content types, it becomes interesting to make the distinction between them. Hence, the different content type will be analysed on their own, with respect to CTR.
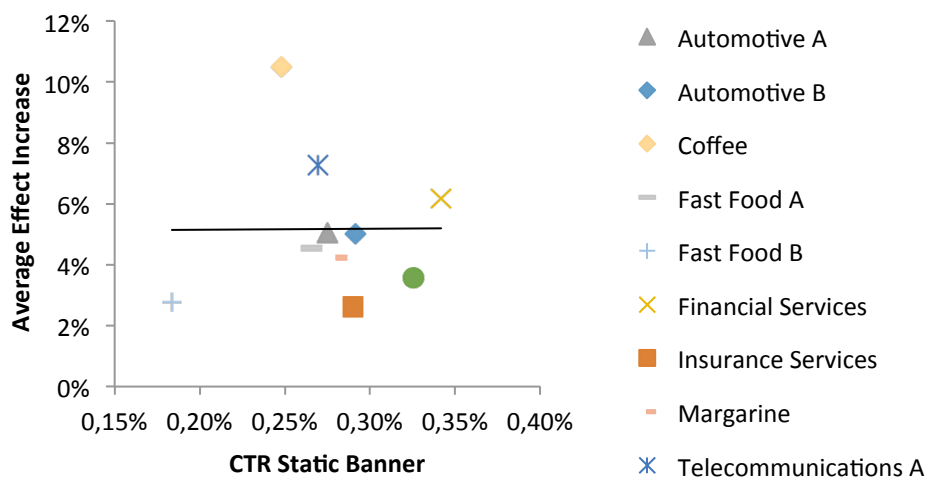
Figure 29. The static banner average effect increase in relation to CTR

Looking at the CTR for static banner in Figure 29, no clear relation is found between the average effects as the gradient is slightly positive.
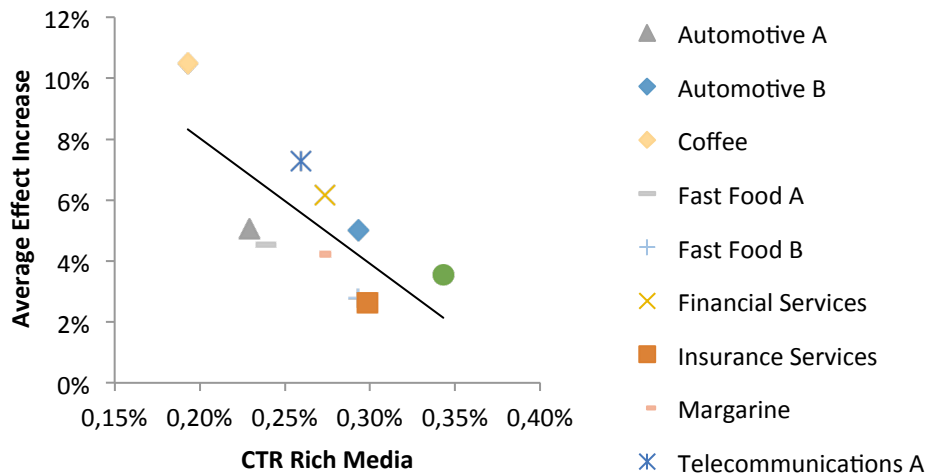
Figure 30. The rich media average effect increase in relation to CTR

Looking at the CTR for rich media in Figure 30, the linear trend line shows a negative relationship between the average effect increase and the CTR. Hence, a higher CTR is not correlated with a higher average effect increase. Pointroll (2014b) states that rich media limits the need to click to a site, which can affect the CTR.
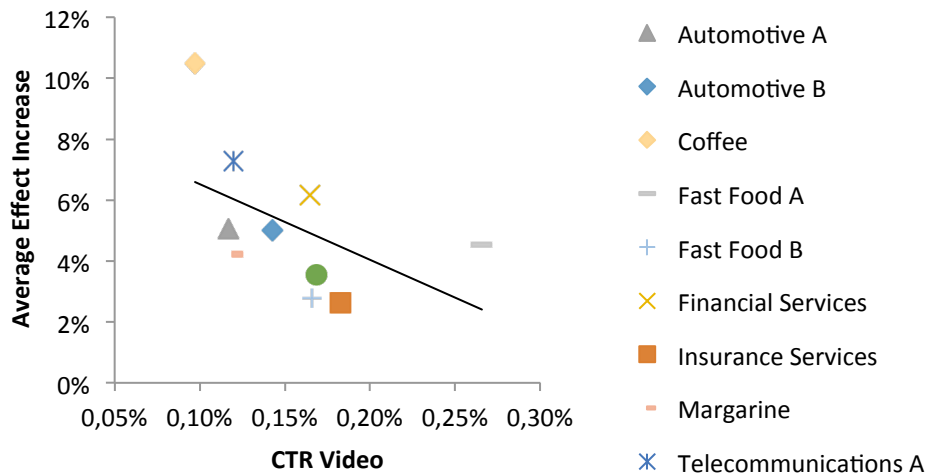
Figure 31. The video average effect increase in relation to CTR

Looking at CTR for the video campaigns in Figure 31, the linear trend line shows a negative relation between the two metrics. Hence, a higher CTR is not correlated with a higher average effect increase. The video campaigns have the same characteristics as the rich media campaigns, meaning that a lot of content can be processed without being redirected to landing page.

7 Conclusions

The following chapter aims to draw conclusions from the analyses above. The chapter will not be as static as 6 Analysis and Discussion, but will still follow the same order. Initially, conclusions will be drawn regarding product category, followed by content type. This will be followed by conclusions drawn from the analyses on frequency and engagement, where engagement is also concluded in relation to content type. Thereafter, conclusions are drawn from the CTR-analysis. The chapter is rounded off with a summary, in which the thesis' research questions are answered, and lastly a discussion on potential further research is presented.

7.1 The Variables

From the analysis and discussion of the results, it has been shown that FMCGs are the products that increase the preference and purchase intention the most, while durable goods increase awareness more. The question arises as to what the strategica goal of the marketing campaign is. For FMCGs, which have been described as lower risk products, the straightforward goal is assumed to change the consumers' behaviour and make them buy the company's products. Hence, increasing the preference and purchase intention becomes utterly important. On the other hand, looking at durable goods, consumers are not expected to change their mind as rapidly as for FMCGs. Therefore, a suitable goal for a car campaign might as well be to increase the awareness of the brand - which during a longer process will change the consumer's perception.

Fogg (2009, 7) states that the mobile channel will become more important for triggering behaviours. Meanwhile, Rampier (2012, 59) states that choosing between different brands within FMCGs can be induced by heavy advertising. Our findings connect these theories, as preference and purchase intention increase more than durable goods when advertised in the mobile channel. Hence, the mobile channel can be a worthwhile channel for FMCGs, to increase sales.

It should be stated that durable goods also increased awareness, preference and purchase intention, however not to the same extent as FMCGs. Therefore, this study indicates that durable goods can also be advertised efficiently in the mobile channel. If the primary objective is to raise awareness, the mobile channel is more suitable for durable goods. If the primary goal is to raise preference and purchase intention, the FMCGs are found to be more suitable to advertise in the mobile channel.

The analyses of the different content types show that static banners increase the preference and purchase intention more than video and rich media. The reason behind this is assumed to be Fogg's (2009) theory on the trigger in a message. When it comes to static banner, the consumer has less of a chance to actually avoid the

stimuli, as the static banner delivers the message instantly. Rich media and video, on the contrary, require an active decision from the consumer. If the decision to engage is not taken, the consumer will miss the trigger, as the message could be hidden inside the content of the ad. Solomon et al. (2006, 49) state that an advertisement that is in contrast to its surroundings catches the consumer's attention. However, even though the spincube and the video might catch the consumer's attention, other factors, such as time, might be limited. Because of this, the consumer might actively choose not to engage with an advertisement. This is also in line with Fogg (2009) who claims that the ability will affect a targeted behaviour.

When looking at the frequency, and its impact on the metrics, it has been shown that there is a positive relationship between the two. The gradient on the slope is different between the metrics, meaning that the individuals' awareness, preference and purchase intention are affected differently as the frequency increases. The fact that the gradients are different between the metrics brings, yet again, up the question as what the strategic goal with the advertising campaign is. If the goal is to increase the awareness of a product, it could be more worthwhile to address an extra individual rather than presenting the campaign an extra time for an already exposed individual. This is because the awareness is only assumed to increase with 0.56 % per added exposure, having little effect on the total metric. However, if the goal is to increase the purchase intention, repeated exposures could possibly convert the consumer into a customer of that very product. This is because the purchase intention is expected to increase with 0.90 % per added exposure.

Regarding the frequency's effect on the metrics, the findings show that there is a positive relationship between exposures and awareness, preference and purchase intention. As a result, it becomes tempting to try to find the optimal frequency. The optimal frequency for a campaign is however part of the discussion above, and will vary with the advertiser's strategic goal. Analysing the results, indications are that the highest effect is reached at (7) unique impressions. This is however the frequency group with the lowest number of completed questionnaires and the reliability of this number has to be taken into consideration. Additional problems with the frequency (7) is that it is fairly hard to reach. Firstly, a consumer might not even visit the website with the advertisement seven times during the campaign period. Secondly, the fact that an impression is not equal to an actual exposure is a challenge.

In the analysis of frequency and content type, especially the static banner showed an increase in awareness, preference and purchase intention. This is assumed to be a result of the mere exposure phenomenon (Hoyer and MacInnis 2008, 156) and Fogg's (2009) trigger message. Fogg (2009) does not include the frequency as a dimension in his paper, but this study has shown that mere exposure of a static banner pays off in the mobile channel.

Engagement has been analysed in order to find out whether a higher degree of engagement leads to higher awareness, preference and purchase intention. As stated, the Rosser Reeves' Fallacy brings up the concern of the dependent and the independent variable. The discussion therefore moved from the engagement's effect on the metrics, towards a discussion of its implications. As stated, people who engaged with the advertisements had higher awareness, preference and purchase intention than other groups. Behind this, there is a business opportunity to reach those individuals who are potential customers. The challenge for the advertisers, together with their media bureaus, is to maximise the extent to which people engage with their ads.

Besides the Rosser Reeves' fallacy, the study analysed rich media and video, which are equal subjects to the fallacy, in comparison with each other. The findings are that video increases all the three metrics more than rich media, possibly since it is more informative and contains both sound and picture. However, the challenge is to increase the amount of video plays. One solution could be auto-play videos including sound, with the risk that these are seen as nuisance (Fogg 2009, 6), with a negative effect.

7.2 CTR

The findings in this study show a negative correlation between the average effect increase and the CTR. However, Pointroll (2014b) states that CTR is not necessarily a suitable metric for rich media, as information can be processed without being redirected to a landing page. Since video shares the same characteristics, the same logic is assumed to apply to this content type. This should be kept in mind when analysing CTR for rich media and video, and these are also the content types which show the strongest negative correlation. Looking at static banner in this study however, which is the campaign where the user is required to click the banner to receive more information, the relation is slightly positive. As Pointroll (2014b) states that CTR should be used carefully for rich media, its impact on this study's findings are scaled down - and CTR for static banner is given more attention. Again, since video and rich media share characteristics, the CTR is assumed to be an unfair metric for video as well.

Concluding, this study's findings are that the CTR cannot be used as a proxy for the three different metrics awareness, preference and purchase intention. As shown in the previous studies, CTR is a commonly used metric when evaluating a campaign's performance. Since the outmost objective with a marketing campaign is to influence consumers in some way, and not count the amount of clicks, CTR should receive less attention. Considering the fact that it is not reasonable to evaluate the effects of

every single campaign with surveys, the question arises as to what metrics to use instead.

7.3 A Summary of the Study's Conclusions

Looking at the thesis' purpose from a wider perspective, the aim has been to create an understanding of mobile display advertising and how it affects the consumer. Some previous research exists, but these are mainly evaluated with data supplied by an ad serving system. In this study, the campaigns have been evaluated using actual effects - awareness, preference and purchase intention. To fulfil the thesis' purpose, two research questions were presented.

(1) How do product category, content type, frequency and engagement affect the consumer's awareness, preference and purchase intention?

(2) Is there a relationship between the CTR and the three metrics awareness, preference and purchase intention?

(1) The two product categories, FMCGs and durable goods, are both suitable for the mobile channel as both have shown an increase in awareness, preference and purchase intention. Durable goods campaigns increased the awareness more than FMCGs, and the channel is suitable to use if the campaign objective is to raise awareness. However, the results show that FMCGs have a greater impact on the preference and the purchase intention, and that these products should be marketed with the intention to instantly increase sales.

Regarding the content type, the static banner shows the greatest effects on the three metrics when it comes to drive preference and purchase intention. Video shows the highest effects when it comes to increasing awareness. All the three content types increase all the metrics respectively.

Frequency is said to have a positive effect on all three metrics, but with different gradients on the linear regressions. This indicates that the different metrics are all affected positively with an increased number of exposures. The purchase intention is said to be the easiest metric to influence, as its gradient of the linear regression is the steepest.

Engagement has been stated to be a subject of a classical fallacy. However, there is a correlation between engagement and higher awareness, preference and purchase intention - which creates a business opportunity. Further, video shows a greater increase in all the metrics, compared to rich media.

(2) The campaigns in this study show, on an aggregated level, a negative relation between CTR and the metrics. Especially video and rich media show a negative relation, and the metric CTR is said to be less suitable for these content types. Even though the static banner shows a slightly positive relation, the findings suggest that the CTR is not a good proxy for aggregated effect.

7.4 Further Research

The study has focused on evaluating how the variables product category, content type, frequency and engagement have affected the metrics awareness, preference and purchase intention. Even though the study drew a number of conclusions, it also had its limitations. These limitations are explained in this section, with the ambition that someone else will continue research on mobile display advertising.

First, being one of the more interesting topics in this study, the authors suggest further research on the frequency. As this study has used impressions when measuring the frequency, other KPIs are assumed to be better suited, for example *in-screen*. The in-screen metric gives a more true value of whether the consumer has seen the ad or not. Further, on the same topic, the authors suggest extended research on the frequency with the inclusion of more data points. This will reduce any potential sampling effects and by doing so, a more accurate optimal frequency can be found.

Besides the in-screen, the industry has to evaluate and find new metrics to support and complement the CTR metric. For example, further research can focus on evaluating how well in-screen time is a better proxy of awareness, preference and purchase intention. This becomes more important as the ad serving systems become more technically advanced.

Another finding in this thesis, which requires further studies is the engagement variable. It has been stated that engagement is related with higher awareness, preference and purchase intention – but a famous fallacy makes it hard to derive which one of the variables that is the dependent variable, and which one is the independent. Further research could address this topic and test the actual effect of a consumer's engagement. This research can be done on other solutions of the video and rich media content, as the creative possibilities are endless.

Last of all, it is of interest to reproduce this study another time to see if the findings are similar. This becomes particularly interesting as this thesis' findings have been opposite of other similar studies made recently.

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9 Appendix

9.1 Appendix A: Questions for the Advertised Product's

Durable Goods

Automotive A
- How well do you know Automotive A?
- If you were to by a car, would you prefer Automotive A or another brand?
- How likely are you to buy a car from Automotive A within a year?
- During the past 14 days, how often have you visited Aftonbladet's mobile website?

Automotive B
- How well do you know Automotive B?
- If you were to by a car, would you prefer Automotive B or another brand?
- How likely are you to buy a car form Automotive B within a year?
- During the past 14 days, how often have you visited Aftonbladet's mobile website?

Financial Services
- How well do you know Financial Services?
- If you were to get a new savings account, would you prefer Financial Services or another brand?
- How likely are you open a savings account with Financial Services within a year?
- During the past 14 days, how often have you visited Aftonbladet's mobile website?

Insurance Services
- How well do you know Insurance Services?
- If you were to get a new insurance, would you prefer Insurance Services or another brand?
- How likely are you to get a new insurance with Insurance Services within a year?
- During the past 14 days, how often have you visited Aftonbladet's mobile website?

Telecommunications A
- How well do you know Telecommunications A?
- If you were to subscribe to a new mobile subscription, would you prefer Telecommunications A or another brand?

- How likely are you to get a mobile subscription with Telecommunications A within six months?
- During the past 14 days, how often have you visited Aftonbladet's mobile website?

Telecommunications B
- How well do you know Telecommunications B?
- If you were to subscribe to a new mobile or Internet subscription, would you prefer Telecommunications B or another brand?
- How likely are you to get a mobile or Internet subscription with Telecommunications B within six months?
- During the past 14 days, how often have you visited Aftonbladet's mobile website?

FMCGs

Coffee
- How well do you know Coffee?
- If you were to buy coffee, would you prefer Coffee or another brand?
- How likely are you to buy coffee from Coffee within a month?
- During the past 14 days, how often have you visited Aftonbladet's mobile website?

Fast Food A
- How well do you know Fast Food A?
- If you were to buy fast food, would you prefer Fast Food A or another brand?
- How likely are you to buy fast food from Fast Food A within a month?
- During the past 14 days, how often have you visited Aftonbladet's mobile website?

Fast Food B
- How well do you know Fast Food B?
- If you were to buy fast food, would you prefer Fast Food B or another brand?
- How likely are you to buy fast food from Fast Food B within a month?
- During the past 14 days, how often have you visited Aftonbladet's mobile website?

Margarine
- How well do you know Margarine?
- If you were to buy margarine, would you prefer Margarine or another brand?

- How likely are you to buy margarine from Margarine within a month?
- During the past 14 days, how often have you visited Aftonbladet's mobile website?

9.2 Appendix B: Completed Questionnaires in each Sample Group

Prod Cat	Campaign	Respondent Group	Compl. Questionnaires
Dur. Goods	**Automotive A**	Reference Value	606
		Static Banner: Exposed Value	272
		Rich Media: Exposed Value	502
		Rich Media: Engagement Value	115
		Video: Exposed Value	240
		Video: Engagement Value	55
	Automotive B	Reference Value	203
		Static Banner: Exposed Value	1201
		Rich Media: Exposed Value	1130
		Rich Media: Engagement Value	131
		Video: Exposed Value	996
		Video: Engagement Value	45
	Financial Services	Reference Value	166
		Static Banner: Exposed Value	781
		Rich Media: Exposed Value	716
		Rich Media: Engagement Value	68
		Video: Exposed Value	715
		Video: Engagement Value	29
	Insurance Services	Reference Value	92
		Static Banner: Exposed Value	832
		Rich Media: Exposed Value	861
		Rich Media: Engagement Value	89
		Video: Exposed Value	889
		Video: Engagement Value	23
	Telecom A	Reference Value	619
		Static Banner: Exposed Value	947
		Rich Media: Exposed Value	900
		Rich Media: Engagement Value	30
		Video: Exposed Value	908
		Video: Engagement Value	8
	Telecom B	Reference Value	441

		Static Banner: Exposed Value	2865
		Rich Media: Exposed Value	1692
		Rich Media: Engagement Value	125
		Video: Exposed Value	1873
		Video: Engagement Value	0
FMCGs	**Coffee**	Reference Value	139
		Static Banner: Exposed Value	656
		Rich Media: Exposed Value	751
		Rich Media: Engagement Value	41
		Video: Exposed Value	719
		Video: Engagement Value	12
	Fast Food A	Reference Value	95
		Static Banner: Exposed Value	1370
		Rich Media: Exposed Value	1887
		Rich Media: Engagement Value	99
		Video: Exposed Value	1324
		Video: Engagement Value	31
	Fast Food B	Reference Value	669
		Static Banner: Exposed Value	686
		Rich Media: Exposed Value	693
		Rich Media: Engagement Value	6
		Video: Exposed Value	649
		Video: Engagement Value	5
	Margarine	Reference Value	125
		Static Banner: Exposed Value	1727
		Rich Media: Exposed Value	1565
		Rich Media: Engagement Value	29
		Video: Exposed Value	1532
		Video: Engagement Value	7
Total			**35982**

9.3 Appendix C: Completed Questionnaire in each Frequency Group

Campaign	Samp. Gro	Ref Val (0 imp)	Completed Questionnaires								Tot
			Frequency Group								
			1	2	3	4	5	6	7	8+	
Auto A	Static Ban	606	60	30	10	3	3	2	0	164	272
	Rich Media		48	23	10	6	5	5	6	399	502
	Video		13	4	2	0	0	0	0	221	240
Auto A	Static Ban	203	336	127	49	36	29	22	30	572	1201
	Rich Media		346	148	61	42	34	39	29	431	1130
	Video		361	106	41	25	31	23	17	392	996
Fin. Serv	Static Ban	166	767	141	28	9	1	1	0	0	947
	Rich Media		723	134	34	6	2	1	0	0	900
	Video		744	132	24	5	2	1	0	0	908
Ins. Serv	Static Ban	92	445	183	78	49	31	15	10	21	832
	Rich Media		464	184	96	45	22	10	13	27	861
	Video		488	186	92	45	28	15	12	23	889
Tel A	Static Ban	619	542	158	55	17	5	3	0	1	781
	Rich Media		495	136	62	16	6	0	0	1	716
	Video		483	160	43	16	7	3	2	1	715
Tel B	Static Ban	441	1598	654	302	141	72	50	22	26	2865
	Rich Media		924	389	174	85	71	27	9	13	1692
	Video		581	366	270	161	131	90	70	204	1873
Coffee	Static Ban	139	407	75	15	8	4	4	1	142	656
	Rich Media		434	70	12	10	4	5	4	212	751
	Video		430	62	15	9	8	8	4	183	719
Fas Fo A	Static Ban	95	664	305	140	68	40	35	19	99	1370
	Rich Media		822	421	228	153	60	57	43	103	1887
	Video		668	218	157	82	52	30	20	97	1324
Fas Fo B	Static Ban	669	484	133	44	13	8	3	1	0	686
	Rich Media		499	120	44	13	9	4	2	2	693
	Video		442	139	37	23	4	3	0	1	649
Marg	Static Ban	125	1184	340	123	48	16	9	3	4	1727
	Rich Media		1069	300	113	39	19	15	5	5	1565
	Video		1003	339	101	41	25	9	10	4	1532
Total		3155	17524	5783	2460	1214	729	489	332	3348	31879

9.4 Appendix D: Completed Questionnaires for each Analysis

Product Category

	Durable Goods	FMCGs	Total
Reference Value	2127	1028	3155
Effect Metrics	19038	13789	32827
Total	21165	14817	35982

Content Type

	Static Banner	Rich Media	Video	Total
Referenc	3155	3155	3155	3155
Effect Me	11337	10697	9845	31879
Total				35034

Product Category and Content Type

	Static Banner		Rich Media		Video		Total
Prod Cat	Dur Goods	FMCG	Dur Goods	FMCG	Dur Goods	FMCG	
Ref Val	2127	1028	2127	1028	2127	1028	3155
Effect Metrics	6898	4439	5801	4896	5621	4224	31879
Total							35034

Engagement

	Static Banner	Exposed Only, Rich Media and Video	Engagement, Rich Media and Video	Total
Reference Value	3155	3155	3155	3155
Effect Metrics	11337	20542	948	32827
Total				35982

90

Content Type and Engagement

	Static Banner	Rich Media	Video	Total
Reference	3155	3155	3155	3155
Effect Me	11337	733	215	12285
Total				15440

Frequency

	Unique Impressions								
	1	2	3	4	5	6	7	8+	Total
Reference Value	3155								3155
Effect Metrics	17524	5783	2460	1214	729	489	332	3348	31879

Frequency and Content Type

	Unique Impressions								
	1	2	3	4	5	6	7	8+	Total
Reference Value	3155								3155
Static Banner: Effect Metrics	6487	2146	844	392	209	144	86	1029	11337
Rich Media: Effect Metrics	5824	1925	834	415	232	163	111	1193	10697
Video: Effect Metrics	5213	1712	782	407	288	182	135	1126	9845
Total	17524	5783	2460	1214	729	489	332	3348	31879