



THE IMPACT OF DIFFERENT APPEALS ON THE PERFORMANCE OF THE FACEBOOK ADVERT

Miguel Morais Carvalho de Oliveira

Dissertation submitted in partial fulfilment of the requirements for the degree of MSc in
Business Administration at Católica-Lisbon School of Business & Economics

ADVISORS: Fernando Santos Jorge, Ana Isabel Almeida Costa

May 2015

ABSTRACT

Title: “The Impact of Different Appeals on the Performance of the Facebook Advert”

Author: Miguel Morais Carvalho de Oliveira

The advent of the online social media brought many challenges and opportunities for advertisers. While there are multiple online social networks, only a few sell advertising space. However, this few social media reach millions of consumers. This dissertation focused on Facebook, the largest online social network, to study how to optimize the performance of ads by using different combinations of promotional appeals and product types.

Two different types of promotional appeals – hard-sell and soft-sell – were compared based on performance (measured by the CTR, Conversion Rate and/or Like Rate). The performances were compared firstly for the same product types, and secondly for different product types. The results from these comparisons were obtained from the statistical analyses of secondary and primary data. The secondary data originated from Facebook advertising campaigns performed by Revshare in 2014 and 2015. The primary data originated from A/B tests of two Facebook advertising campaigns that combined the advertising appeals with the product types. Independent T-test and regression analyses on secondary data presented that none of the appeals led to a better comparative performance, and that none of the product types affected the performance of each appeal. Independent T-test analyses on primary data yield the same results.

The main conclusion taken from both secondary data and primary data is that there are no significant changes in performance on Facebook ads for different types of advertising appeals. This finding remained unaltered when the different advertising appeals are combined with different product types.

SUMÁRIO

Título: “O Impacto de Apelos Distintos na Performance do Anúncio de Facebook”

Autor: Miguel Morais Carvalho de Oliveira

O advento dos meios de comunicação social em linha trouxe muitos desafios e oportunidades para os anunciantes. Embora existam várias redes sociais online, apenas um número reduzido vende espaço publicitário. No entanto, este número restrito de mídias sociais atinge milhões de consumidores. Esta dissertação focou-se no Facebook, a maior rede social online, para estudar a forma de otimizar o desempenho dos anúncios usando diferentes combinações de apelos promocionais e tipos de produtos.

Dois géneros diferentes de apelos promocionais – venda dura e venda suave - foram comparados com base no desempenho (medido pela Taxa de Cliques, Taxa de Conversão e/ou Taxa de Gostos). Os desempenhos foram comparados em primeiro lugar para os mesmos tipos de produtos, e em segundo lugar para diferentes tipos de produtos. Os resultados destas comparações foram obtidos a partir de análises estatísticas de dados secundários e primários. Os dados secundários provieram de campanhas publicitárias no Facebook realizadas pela Revshare em 2014 e 2015. Os dados primários originaram de testes A/B de duas campanhas de publicidade no Facebook que combinaram os apelos publicitários com os tipos de produto. As análises com testes t de Student e com regressão, realizadas em dados secundários, revelaram que nenhum dos apelos originou um melhor desempenho comparativo, e que nenhum dos tipos de produtos afetou o desempenho de cada apelo. Análises com testes t de Student, realizadas em dados primários, apresentaram os mesmos resultados.

A principal conclusão, tirada de ambos os dados secundários e primários, é que não há mudanças significativas no desempenho dos anúncios no Facebook para diferentes tipos de apelos publicitários. Esta conclusão permaneceu inalterada quando os diferentes apelos publicitários foram combinados com os diferentes tipos de produtos.

ACKNOWLEDGEMENTS

First I would like to express my sincerest gratitude to my supervisors Ana Isabel Almeida Costa and Fernando Santos Jorge for their remarks, support and useful comments through the process of writing this master thesis. Despite the many difficulties, their dedication and encouragement made it possible for this thesis to be completed.

I would like to express my gratitude to Revshares' employees for their support. I would like to give a special thanks to Gustavo Sande e Castro for his availability to promptly provide the necessary data for the realization of this master thesis. Furthermore I would like to thank Francisca Graça for the time she expended to share her experience, and her availability to help. Also, I would like to thank the participants in my surveys, who shared their precious time in the process of answering the surveys.

Finally, I would like to thank my family, specially my mom, Teresa Oliveira, for all her effort to give me the best, and Mariana Oliveira, the person who is always there for me and without whom none of this would be possible. Thank you for your love.

TABLE OF CONTENTS

| | |
|--|----|
| 1. INTRODUCTION | 12 |
| 1.1. Background | 12 |
| 1.2. Problem statement | 14 |
| 1.3. Aim..... | 16 |
| 1.4. Scope | 17 |
| 1.5. Research Method..... | 17 |
| 1.6. Relevance | 18 |
| 1.7. Outline..... | 18 |
| 2. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK..... | 19 |
| 2.1. Online advertising | 19 |
| 2.2. Social media | 19 |
| 2.2.1. Social networking sites | 21 |
| 2.2.2. Social media advertising | 21 |
| 2.3. Facebook | 23 |
| 2.4. Display advertising..... | 23 |
| 2.4.1. The display advertising ecosystem | 24 |
| 2.4.2. Display advertising vs print advertising | 25 |
| 2.4.3. Consumer's reactions to display advertising | 26 |
| 2.4.4. Display advertising campaigns on Facebook..... | 26 |
| 2.5. Advertising appeals | 28 |
| 2.6. Consumer's motivations and product types | 29 |
| 2.7. Conclusions | 30 |
| 3. METHODOLOGY | 32 |
| 3.1. Research approach..... | 32 |
| 3.2. Secondary data | 32 |

| | | |
|--------|---|----|
| 3.2.1. | Population | 32 |
| 3.2.2. | Data Collection | 32 |
| 3.2.3. | Data Analysis | 33 |
| 3.3. | Primary Data | 33 |
| 3.3.1. | Data Collection | 33 |
| 3.3.2. | Data Analysis | 34 |
| 4. | RESULTS AND DISCUSSION..... | 35 |
| 4.1. | Secondary Data | 35 |
| 4.1.1. | Descriptive statistics analysis – Pre-test surveys | 35 |
| 4.1.2. | ANOVA with Repeated Measures | 36 |
| 4.1.3. | Regression Analysis..... | 37 |
| 4.1.4. | Independent Samples T-Tests | 37 |
| 4.2. | Primary Data | 38 |
| 4.2.1. | Independent Samples T-Tests for ad classifications | 38 |
| 4.2.2. | Independent Samples T-Tests for performance measuring | 39 |
| 4.3. | Summary and discussion of the statistical analyses results..... | 40 |
| 5. | CONCLUSIONS AND LIMITATIONS..... | 42 |
| 5.1. | Conclusions | 42 |
| 5.2. | Limitations and Future Research..... | 43 |

TABLE OF FIGURES

Figure 1-1 Example of an external website ad (Sales Force, 2013)..... 13

Figure 1-2 Example of a banner ad (WordStream, n.d.) 14

Figure 1-3 - Average Click-Through Rate for different types of Facebook adverts (Sales Force, 2013). 15

Figure 2-1- Facebook advertising campaign objectives (Facebook, 2015f) 27

TABLE OF TABLES

Table 2-1 IAB display advertising standards 24

Table 2-2 Different types of traditional and modern appeals (Mueller, 1987) 28

Table 4-1 Gender frequencies from the sample used in the first pre-test survey 35

Table 4-2 Mean age and standard deviation from the sample used in the first pre-test survey 35

Table 4-3 Gender frequencies from the sample used in the second pre-test survey 36

Table 4-4 Mean age and standard deviation from the sample used in the second pre-test survey 36

Table 4-5 Fit and predictive power of the regression model..... 37

Table 4-6 Performance metrics of the primary data campaign optimized for conversions, per ad 39

Table 4-7 Performance metrics of the primary data campaign optimized for likes, per ad 39

TABLE OF ANNEXES

ANNEX 1 – Adverts from Secondary Data 51

ANNEX 2 – Adverts for Primary Data collection 59

ANNEX 3 – Average appeal score, where 1 means "Very Soft-Sell" and 6 means "Very Hard-Sell" 61

ANNEX 4 – Average need aroused score where 1 means "Very hedonic" and 6 means "Very utilitarian" 62

ANNEX 5 – Profile plots with mean values of the hardness of each ad, per group 63

ANNEX 6 – Profile plots with mean values of the utility of each ad, per group..... 64

ANNEX 7 – Description of the variables manipulated in the secondary research analysis 66

ANNEX 8 – Description of the variables manipulated in the primary research analysis 66

GLOSSARY

A/B split test: Refers to a test situation in which a list is split into two halves with every other name being sent one specific creative, and vice versa.

Advertiser: The company paying for the advertisement.

Agency: An organization that, on behalf of clients, plans marketing and advertising campaigns, drafts and produces advertisements, places advertisements in the media. In interactive advertising, agencies often use third party technology (ad servers) and may place advertisements with publishers, ad networks and other industry participants.

API: An API (Application Programming Interface) is a set of commands, the language that programmers or developers use to communicate with a specific piece of software or hardware.

ATD (Agency Trading Desk): A department or arm of an agency that oversees programmatic buying. Many agency holding companies have trading desks.

Campaign: In traditional marketing, a campaign is a series of advertisement messages that share a single idea and theme. In digital advertising, a campaign will refer to a set of ad buys from a specific ad network or publisher.

Conversion Rate: The percentage of users who complete a desired action (e.g., purchase or registration) compared to all users who were exposed to an online ad.

Cookie: A cookie, also known as an HTTP cookie, web cookie, or browser cookie, is a string of text sent from a web server to a user's browser that the browser is expected to send back to the web server in subsequent interactions. In online advertising, cookies generally store a unique identifier, and may contain information like what ads were recently seen (for frequency capping), when the cookie was created (to discover short duration identities), and other simple attributes.

CPC (Cost-per-Click): Cost of advertising based on the number of clicks received.

CPM (Cost-per-thousand): Media term describing the cost of 1,000 impressions.

CTR (Click through rate): The percentage of ad impressions that were clicked on as compared to the entire number of impressions.

Display Advertising: A form of online advertising where an advertiser's message is shown on a destination web page, generally set off in a box at the top or bottom or to one side of the content of the page.

DSP (Demand Side Platform): Also called buy side optimizer and buy side platform, the DSP is a technology platform that provides centralized and aggregated media buying from multiple

sources including ad exchanges, ad networks and sell side platforms, often leveraging real time bidding capabilities of these sources.

Impression: A single display of online content to a user's web-enabled device. An online advertisement impression is a single appearance of an advertisement on a web page. Each time an advertisement loads onto a user's screen, the ad server may count that loading as one impression.

Inventory: The aggregate number of opportunities near publisher content to display advertisement to visitors.

Like Rate: The percentage of ad impressions that received clicks on the "Like Button" as compared to the entire number of impressions.

Log file: A file that records transactions that have occurred on the Web server. Some of the types of data which are collected are: date/time stamp, URL served, IP address of requestor, status code of request, user agent string, previous URL of requestor, etc.

Publisher: An individual or organization that prepares, issues, and disseminates content for public distribution or sale via one or more media.

Reach: The total number of unique users who will be served a given ad.

ROI (Return on Investment): Net profit divided by investment.

RTB: The RTB acronym indicates a real-time system for either bidding on or buying ad inventory. The initial RTB ecosystems evolved from the efforts of DSPs to create a more efficient exchange of inventory. Due to these roots, RTB ecosystems put significant emphasis on user information (demographic and behavioral data, for example), while discounting the situation information (the publisher and context).

SSP: A sell side platform (SSP), also called supply side platform, sell side optimizer, inventory aggregator, and yield optimizer, is a technology platform that provides outsourced media selling and ad network management services for publishers. A sell side platform business model resembles that of an ad network in that it aggregates ad impression inventory. However, a sell side platform serves publishers exclusively, and does not provide services for advertisers.

The inventory managed by the SSP is usually purchased by aggregate buyers, either demand side platforms (DSPs) or ad networks.

1. INTRODUCTION

1.1. Background

Many companies are decreasing their spending in traditional media while leveraging online media for advertising (Beard & Yang, 2011). These changes are occurring as new research proves that the online channels are effective for driving sales both online and in-store, with improved ROI and/or lower costs (Fulgoni & Lipsman, 2014). In the beginning, this shift did not involve a change in the content and design of the advertisements. Indeed, the first online advertisements were static images, which were very similar to print advertisements (Lohtia, Donthu, & Hershberger, 2003). When the advances in technology allowed online advertisements to be animated, they became similar to television advertisements.

However, it was not expected that advertisements in online media would work the same way as in traditional media. This difference in reaching the audience was mainly due to the random placement of the online advertisements on websites (Lohtia et al., 2003). In traditional media, the advertisers had the benefit of choosing the placement and timing for the advert. This advantage of the traditional media was short-lived as clutter problems still persist today. Meanwhile, the digital ecosystem had an intense evolution, with new delivery systems and new targeting technologies surfacing so frequently that marketers can hardly stay up to date (Flosi, Fulgoni, & Vollman, 2013).

Still, these new systems did not solve the issue of consumers avoiding ad exposure, and so many Internet advertisers are struggling to create mechanisms to increase ad visibility (Yeu, Yoon, Taylor, & Lee, 2013). Such mechanisms include forcing the view of an advert before allowing the consumer to access the desirable content, showing an advert but allow it to be skipped, or creating an agreement with the consumers where access to paid content is given if the consumer watches an advertising in blocks. The avoidance matter is becoming less of a problem due to these mechanisms. However, if consumers perceive that an online advertisement is an obstacle to achieve their goal, they will surely find it annoying (C.-H. Cho & Cheon, 2004). A method of circumventing this annoyance is to use cookie technology to track consumers, so that they see relevant ads when they are actually shopping for the advertised product or service (Yaveroglu & Donthu, 2008). Online media provide ample opportunity to narrowly target ads, given that it is much easier to customize ad messages and formats than in traditional media.

Several studies have been published about consumer’s reactions to banner ads in general web pages (Lohtia et al., 2003; Moore, Stammerjohan, & Coulter, 2005; Wang, Shih, & Peracchio, 2013). However, little is known about reactions to banner ads in social-networking sites (SNS). Social-networking advertising (SNA) remains a largely unexplored topic, in spite of the growing number of advertisers integrating this ad media into their promotional mix (Taylor, Lewin, & Strutton, 2011).

Revenues with SNA amounted to \$2.9 billion in the US, in the first half of 2014, having increased with a 54% compound annual growth rate from the first half of 2012 to the first half of 2014 (IAB/PwC, 2014). There are still no clear guidelines about the choice of promotional appeals to employ in social media banner ads for advertisers looking to improve campaign performance. In particular, ad message is mainly important on environments where consumers are sensitive to the relevance of the message they are receiving (Taylor, 2009). Facebook is one of those environments, boasting more than 1 billion users, making it the largest SNS presently (Cocotas, 2013). Facebook’s external website ad (Figure 1-1) resembles the banner ads (Figure 1-2) the most.

Other formats of advertising on Facebook include inline like, app ad, page post, mobile app install, event RSVP, sponsored page like story, sponsored app action story, sponsored page post action story, sponsored page post like story and sponsored place check in story (Sales Force, 2013).



Figure 1-1 Example of an external website ad (Sales Force, 2013)



Figure 1-2 Example of a banner ad (WordStream, n.d.)

The average cost-per-click (CPC) of a Facebook advert is low enough to make it an attractive investment. This is especially relevant since advertisers are shifting the allocation of their online display budgets from campaigns paid by impressions to campaigns paid for performance (G. M. Fulgoni & Mörn, 2009). While the average cost of an advert on Facebook is \$0.80 per click, that of a Google AdWords' advert is \$2.50 per click (Crazy Egg, 2014). But advertisers must take into account that the CPC of Facebook ads increases inversely with Click-Through-Rates. This could be an issue depending on the advertising campaign goals, which can be branding or direct response (Nielsen, 2013). In the case of direct response, advertisers want to optimize the CTR because the goal is to improve performance, i.e. have more consumers clicking on the ad. In case of branding, the advertiser may want to enhance brand awareness or purchase intentions, instead of having the sole purpose of ensuring that consumers click on the ad. So, if the goal is branding, the CTR may not be the most important metric, even though it is the most popular one.

Accordingly, if the goal is performance, the advertiser will want to use a promotional appeal that captures the attention of the viewer and incites the click.

1.2. Problem statement

Facebook allows advertisers to select specific targeting options so that they can connect with the right customers (Facebook, 2015b). Smaller advertisers can create advertising inexpensively and target users based on demographic and psychographic variables as gender, age, location, relationship status, education, or interests (Taylor et al., 2011). Even so, the click-through rate (CTR) is much lower on Facebook adverts when compared to the CTR of adverts

in other platforms. While the industry average CTR in 2013 for a standard banner ad was 0.1% (Sizmek, 2014), it was 0.02% in the same year for an external website ad on Facebook, as indicated in Figure 2 (Sales Force, 2013).

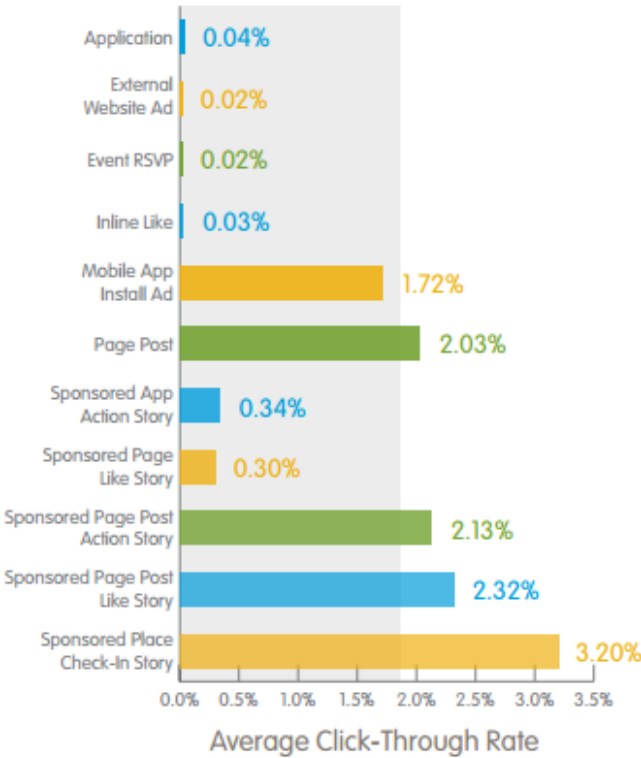


Figure 1-3 - Average Click-Through Rate for different types of Facebook adverts (Sales Force, 2013).

This disparity between the averages of the CTR’s may be due to multiple circumstances. Firstly, the banner advertisements on Facebook are always displayed on the right side of the page, except on mobile devices. This may lead the users to avoid fixing their eyes on the screen region where the advertisements are placed, a well-known phenomenon named “banner blindness” (Benway, 1999). And secondly, because the motivation of the Facebook user is not to make a purchase (Bumgarner, 2007; Madrigal, 2013) , they are less motivated to process the message on advertisements that are selling a product or service (Haans, Raassens, & van Hout, 2013). One method to increase the performance of an ad is to match product types and arguments (Lavine & Snyder, 1996). The arguments present in an ad correspond to the advertising appeal if they are presented in a message that intends to stimulate the consumer to make a purchase (Mueller, 1987). Different advertising appeals can evoke different responses from consumers, such as forwarding an email that conveys strong emotions (Phelps, Lewis, Mobilio, Perry, & Raman, 2004). Thus, matching different appeals with different product types can increase persuasiveness. For example, Johar and Sirgy (1991) argued that value-expressive appeals

perform better when paired with value-expressive products, while utilitarian appeals perform better when paired with utilitarian products.

The performance of a Facebook banner ad can be enhanced by matching the advertising appeal to the product type. Nevertheless, to the best of my knowledge, there is no previous research on this matter or studies testing different matches on Facebook ads. The most common product types in many academic studies are hedonic and utilitarian (e.g. Botti & McGill, 2011; Chernev, 2004; Chitturi, Raghunathan, & Mahajan, 2008; Melnyk, Klein, & Völckner, 2012; Okada, 2005; Solomon, 2012). Regarding the advertising appeals, soft-sell and hard-sell appeals are vastly used in academic studies and advertising textbooks (Okazaki, Mueller, & Taylor, 2010). Studying the performance of different combinations of these elements in Facebook adverts would help marketing managers and agencies on choosing the content that generates more clicks and thus reduces the spending per click.

1.3. Aim

The focal point of this dissertation was the comparative performance of Facebook advertisements with different appeals and different consumer's needs. In this specific context, the advertiser's goal was direct response, which meant that different metrics were employed to measure performance, such as click-through rate, conversion rate and like rate. The appeals were distinguished as soft-sell and hard-sell, the needs varied between hedonic and utilitarian. Two advertising campaigns were run, each one with two different adverts. One of the campaigns measured the impact of the different appeals when the need was hedonic, and the other when the need was utilitarian.

Hence, the research questions were formulated as follows:

RQ1: Which advertising appeal has a greater impact on performance?

RQ2: Do hard-sell appeals have a greater impact on performance according to the need aroused by the advertised product?

RQ3: Do soft-sell appeals have a greater impact on performance according to the need aroused by the advertised product?

The answers for the research questions will benefit advertisers in the process of designing the advertising appeal for products that satisfy different needs by providing them with a set of guidelines to improve campaign performance.

1.4. Scope

The present dissertation was made possible due to the protocol between Católica-Lisbon and Revshare, a specialized digital marketing agency which goal is to optimize outcomes for advertisers and publishers. The advertising campaign secondary and primary datasets were kindly provided by Revshare. The adverts originated from one single channel which was the social medium Facebook. The adverts from the secondary data followed two different formats, namely Newsfeed and Right Column, while the adverts from the primary data only adhered to the Newsfeed format. The secondary data originated from campaigns occurred in Portugal and Brazil between April of 2014 and March of 2015. The primary data was collected from campaigns occurred in Portugal on the first week of May of 2015. The performance was measured based on the behaviour of the Portuguese and Brazilian consumers exposed to the adverts, specifically by the measure of the click-through rates, conversion rates and like rates. After clicking one of these advertisements, the consumers were either prompted to follow a page on Facebook, or led to a web vertical portal owned by Revshare. On the vertical portal, consumers were expected to register on the website, this meaning filling a form with personal information. The campaign goals were set to optimize the number of clicks in advert in an established period of time, which was related to Revshare's essential goal of generating leads. These goals and campaign duration were equivalent for all the advertisements even though they were from different industries.

1.5. Research Method

To answer the research questions, Revshare provided secondary data and provided the means to conduct primary research. The secondary data originated from 21 past campaigns, totalling 64 different adverts. The general metrics from the adverts were firstly compared between the adverts, to investigate which ones performed better and to be able to infer which type of appeals led to better performance.

The primary research involved two A/B test experiments. For each test there were two different adverts, and each advert was show to a random group of 15000 people, on average. In all tests, the adverts differed in appeal, which could be soft-sell or hard-sell. They also differed in the need aroused by the product, which could be hedonic or utilitarian.

1.6. Relevance

Consumer's primary motivation to access the Internet is to experience its content. This is also the reason why less attention is paid to online advertisements when compared to other media (Yeu et al., 2013). Looking specifically at Facebook, the main motivations for users to login are social activity and entertainment, or escape (Bumgarner, 2007; Madrigal, 2013). Searching for products or services is not part of the user's relevant motivations while on Facebook. However, if a user is exposed to an advertisement that is personally relevant, he or she may click on it because the level of involvement is high (Olson & Celsi, 1988). Advertisers have the chance to make the advertisements personally relevant by using behavioural targeting and displaying them based on the browsing behaviour on Facebook (Yaveroglu & Donthu, 2008). Moreover, advertisers are aware that the design elements and verbal descriptions of the advertisements influence the CTR, which leads them to empirically test the impact on performance of different types of images and copies (Facebook, 2015e), expecting to find the features that are more relevant for the consumers.

While these tests are common practice for advertisers, not many studies attempt to discern the impact of different appeals (determined by design elements and verbal descriptions) on performance. In fact, there are, to the best of my knowledge, no studies regarding this topic when it comes to advertising on Facebook. The previous studies on display advertising may not apply to Facebook because of the differences in advertising standards, privacy and motivations when compared to other websites. Conducting a research on the present topic is valuable for digital marketing agencies and advertisers conducting display advertising campaigns on social media. The findings in this dissertation will help them make better decisions when designing the advert in order to increase the CTR.

1.7. Outline

Chapter 2 presents a literature review on online advertising, focusing on display advertising and social media advertising, and on advertising appeals. Chapter 3 delineates the research methods, the collected data sets and the implemented statistical analysis. Chapter 4 presents and discusses the statistical results obtained, and assesses the validity of the research hypotheses. Chapter 5 underlines the main conclusions and limitations of this dissertation, and suggests future research studies.

2. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1. Online advertising

Online advertising, in simple terms, is an extension of the broadcast model used on traditional media (Information Resources Management Association, 2012). Most websites broadcast free content with information that is useful for the customer. Alongside the content there are advertising messages that provide revenue for advertisers (Information Resources Management Association, 2012). Online advertising campaigns often aim to achieve one of the following goals: increasing target traffic to a site, increasing sales, becoming a trusted resource in a certain industry, increasing online visibility, establishing a company in local search, establishing a brand or business in social media, or branding (Ivkovic, 2010).

Meanwhile, tools such as advertising, public relations, sales promotion, direct marketing and personal selling, which have been used in traditional media, needed to be redefined due to the rise of the digital media (Strauss & Frost, 2014). There are three broad categories of media available to digital marketers – owned, paid and earned (Brito, 2013; Strauss & Frost, 2014). Owned media are the channels that a company at least partially controls and uses to communicate with internet users (Strauss & Frost, 2014). Websites and e-mail are examples of channels fully controlled by the company, while other channels such as a Facebook page are borrowed space. Paid media are channels owned by others who the companies pays to display their promotional communications. Social media adverts are an example of paid media. Earned media are related to user-generated content (UGC), these media are the channels that emerged from individual conversations such as word-of-mouth or social media posts made by internet users. These media are the least controllable by the companies, but they can engage in the conversation so that the messages are positive for the brand (Strauss & Frost, 2014).

The rise of digital media also caused a change in consumer behaviour, pushing marketers to request permission from the customers to deliver a particular communication. This is known as inbound marketing, as opposed to outbound marketing where the marketer interrupts the customers to show them an advert (Strauss & Frost, 2014).

2.2. Social media

Social media are Web pages that allow social networking (Strauss & Frost, 2014). There are three types of social media that differ in their features and characteristics – social media platform (SMP), content community site (CCS) and social networking site (SNS) (Bergh, Lee,

Quilliam, & Hove, 2011; Dao, Le, Cheng, & Chen, 2014). The CCS allows users to share a specific type of content, such as videos or pictures. The SMP allows developers to create and post applications for wide distribution. The SNS allow users to create a public or semi-public profile, to share a connection with other users, and to view their own, as well as others, list of connections (Boyd & Ellison, 2007).

Internet users are attracted more quickly to social media sites than traditional media sites, and the number of social media sites is increasing. This brings new opportunities for marketers, but also new challenges (Strauss & Frost, 2014). One of these challenges is the power shift from sellers to buyers. Consumers are now more informed and can easily access competitors when making purchasing decisions, which modifies consumer behaviour (Clemons, 2009). Moreover, the Internet amplified the influence of Word-of-Mouth, as any customer can now easily and instantly share online a positive or negative statement about a company or product (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). Such statements, known as electronic word-of-mouth communication (eWOM), are available online to a large number of people and institutions. Social networking sites facilitate and accelerate eWOM, since the consumers share their opinions with their existing networks (Chu & Kim, 2011). The consumers will, therefore, rely more on the message sent by a member of their network than if it was shared by an unknown stranger. eWOM on social networking sites empower consumers even more, as an individual comment can quickly reach a large number of consumers and enhance or harm a brand's image (Strauss & Frost, 2014).

Consumer interactions and created contents about brands are named consumer's online brand-related activities (COBRAs) and hold major consequences for companies (Muntinga, Moorman, & Smit, 2011). When individuals perform COBRAs on social media, such as uploading a brand-related video, audio, picture or image, writing a brand-related article, or writing a product review, they are impacting their peers' consumption behaviour more than traditional forms of advertising (Muntinga et al., 2011). The content on social media that is created by internet users is called user-generated content (UGC) and it can have an influence on purchase decisions (Riegner, 2007). Because every social media user is a content producer, the UGC surpasses the amount of content created by the companies (Strauss & Frost, 2014).

Consumers are increasingly aware that they can influence others' purchase decisions on virtual brand communities (Bronner & de Hoog, 2011), and are motivated to create brand content on social media to exert their influence on other consumers or companies (Muntinga et al., 2011). Conversely, they also create brand-related content to develop their personal identity, for social

interaction and integration, and for entertainment purposes. Recognizing the social media users motivations when engaging in COBRAs allows managers to develop a strategic management of the user-generated content to achieve brand goals, which is known as user-generated branding (UGB) (Burmam, 2010).

2.2.1. Social networking sites

Some social networking sites allow strangers to connect based on their interests, political views or activities, but most social networking sites aim to maintain the users' pre-existent social networks (Boyd & Ellison, 2007). This is due to the participants' motivations when accessing these sites. While they are called social networking sites, participants are not primarily interested in meeting new people or networking, instead they are motivated to communicate with contacts who are part of their extended social network (Boyd & Ellison, 2007), and to pursue social support and a sense of belonging (Chu & Kim, 2011). For this reasons, the main technical feature of any social networking site is visible profiles where the list of connections of the users is displayed. In fact, social networking sites differentiate from each other by mainly varying the definitions of profile visibility (Boyd & Ellison, 2007). Some sites, such as LinkedIn, limit the amount of information a user can consult in another user profile, based on whether the user has a paid account or not. Others, however, allow the user to decide if their profile should be made public or viewable to different parts of the user network, such as MySpace. There are some exceptions, such as Flickr and YouTube, where it is common that the participants have never met and do not intend to meet. These networks, termed virtual electronic social networks (ESNs), differentiate themselves from other SNS because there is high level of interaction inside them, but no interaction among members outside them (Clemons, 2009). Besides interacting with contacts, users also join social networking sites to feel less bored and fill their time (Kelly, Kerr, & Drennan, 2010).

2.2.2. Social media advertising

It is common for advertisers to believe that advertising fails because the message is being pitched using the wrong channels. This leads them to consider that consumers are willing to accept their message in new channels such as Facebook or Youtube (Clemons, 2009). Today, 80% of the internet users use one or more social media sites, while more than half of (52%) access two or more of the social media sites (Duggan, Ellison, Lampe, Lenhart, & Madden, 2015). Because every year more consumers join social media, marketers feel the need to

advertise through these channels (Taylor et al., 2011). According to Chu and Kim (2011), social media advertising is a type of online advertising that 'which, with their consent, incorporates users' interactions and displays, and shares the aspects of their persona - such as names or pictures - within the advertisement content. For example, Facebook may pair profile names and adverts so that users can acknowledge which friends follow the advertised product (Facebook, 2015a)

Social media advertising uses both outbound and inbound as a delivery method (Taylor et al., 2011). There is content that is pushed to consumers, such as banner advertisements and videos, similarly to how advertising content was delivered in traditional media. This content is mostly paid and aims to generate revenue. But some content, usually non-paid, relies on consumers to be pulled, such as fan pages and tweets. It is difficult to differentiate this type of content from user content, for example, company's Facebook posts and Twitter tweets are undistinguishable from non-commercial messages (D. G. Taylor et al., 2011).

A social networking site is a unique environment that consumers view as a public but, at the same time, private social space (D. G. Taylor et al., 2011). Advertisers are still ascertaining how to advertise effectively in these sites. Promotional appeals are fairly easy to introduce in offline ads because there is an implicit social contract between consumers and advertisers: consumers get editorial content for a reduced cost, in exchange of being exposed to advertising messages (Gordon & Lima-Turner, 1997). On the online cyberspace this contract is not apparent to the consumers, and so they think that advertising is annoying because it is interfering with their online activity and impeding their goals (C.-H. Cho & Cheon, 2004; Edwards, Li, & Lee, 2002). This can be more accentuated in social networking sites since heavy Internet users are expected to hold more negative stances in relation to online advertising (Yang, 2003). Additionally, the attitudes of the users toward social media advertising are more negative is the users perceive that the advertising is intrusive or if their privacy is compromised by the data collected for advertising practise. By delivering their communications in social networking sites, advertisers are confronted with the challenge of compromising the usage of targeted messages and the safeguarding of the consumer's privacy (D. G. Taylor et al., 2011).

Social interactions on social networking sites should not be appropriated by companies for commercial purposes (Clemons, 2009), nonetheless, it is common for users of these social networks to search for advertising content and participate in the propagation of the advertising messages to other consumers (D. G. Taylor et al., 2011).

2.3. Facebook

Facebook is classified as both a social media platform and a social networking site (Bergh et al., 2011). It allows its users to connect with family and friends and to discover current events happening around the world (Facebook, 2015d). Its mission is to connect all people and give them power to share contents. To that end, Facebook has been launching different products since its inception (Facebook, 2015h).

The user's profiles on Facebook are, by default, available only to their network connections, known as "Friends" (Lafferty, 2014). Connections with Friends are bidirectional, but users may also establish unidirectional connections, such as enlisting as fans of a company Facebook fan page (D. G. Taylor et al., 2011). There are two advantages of creating these unidirectional connections: companies or brands can enlist any number of fans (whereas the number of Friends is limited), and users can follow companies or brands without conceding them access to their profiles. Besides the fan pages, companies can reach their consumers with paid messages that can be placed on the user's News Feed and on the right column of Facebook (Facebook, 2015k). Advertisers can create inexpensive ads on Facebook and reach their target audiences, by showing the ads only to users who match the desired demographic and psychographic criteria (D. G. Taylor et al., 2011).

2.4. Display advertising

Display ads, also known as banner ads, are defined by the Internet Advertising Bureau as "a form of graphical ads embedded into a webpage, typically including a combination of static/animated images, text and/or video designed to convey a marketing message and/or cause the user to take an action" (IAB, 2012b). A banner ad can be defined as a distinct commercial message with a clearly identifiable source (Tutaj & van Reijmersdal, 2012). The first banner ad was impressed in 1994 (C.-H. Cho & Cheon, 2004). Twenty-one years later, it is still one of the most relevant formats. According to IAB (IAB: www.iab.net), internet advertising was approximately a \$23.1 billion industry in the United States alone, by the first half of 2014. Banner advertising accounted for 17% of the first half of 2014 revenues, or \$3.9 billion (IAB/PwC, 2014). In conjunction with banner advertisements, other major online advertising formats include search, mobile, digital video, classifieds, lead generation, rich media and sponsorship, but some advertisers rely only on banner advertisements as their only source of revenue (Information Resources Management Association, 2012). Over 80% of all sold display ads follow IAB standards (IAB, 2012c) which are exhibited on table 2.1.

Table 2-1 IAB display advertising standards

| | |
|----------------------------|---|
| Digital Video Rising Stars | Filmstrip, Ad Control Bar, TimeSync, Extender, Full Player |
| Display Rising Stars | Billboard, Filmstrip, Portrait, Pushdown, Sidekick, Slider |
| Universal Ad Package (UAP) | Medium Rectangle, Rectangle, Wide Skyscraper, Leaderboard |
| Other Ad Units | Super Leaderboard, Half Page, Button 2, Micro Bar |
| Rich Media Guidance | In-Banner Video (file-loaded), In-Banner Video (streaming), Expandable/Retractable, Pop Ups, Floating, Between-the-Page |

The quality and effectiveness of a display advertising campaign can be determined by the click-through rate (Vaughan, 2012). The cost of a display advertising campaign can be measured with different metrics, such as cost per thousand or cost per click, depending on the campaign type and the marketer’s goals (IAB UK, 2012b).

2.4.1. The display advertising ecosystem

The relations between advertisers and publishers, traditionally limited to direct buying and selling, have developed into a complex display ecosystem with data driving real time bidding and selling (IAB UK, 2012a). The display advertising ecosystem lays its foundations on the following concept: “A marketer buys online display inventory in order to reach their target audience with their advertising creative to achieve their objectives” (IAB UK, 2012b). The buying and selling of display advertising can be direct between advertiser and publisher or mediated between third parties such as ad networks and ad exchanges. An ad network outsources sales for publishers, providing media buyers with a single opportunity to buy aggregate inventory and audiences from multiple sources (IAB, 2012a). An ad exchange is an online marketplace for selling and buying inventory that is used by multiple parties, mainly direct publishers, advertisers, Ad Networks, Ad Exchanges, Demand Side Platforms (DSP), Supply-side platforms (SSP) and Agency Trading Desks (ATD) (IAB UK, 2012b). Sellers of advertising space monetise their inventory by selling it in an online auction to the highest bidders, using a real-time bidding (RTB) system (Google, 2015).

Even though there are several multiple parties involved in the display advertising ecosystem, social media rely on the traditional advertisers and publisher's relation of buying and selling directly (IAB, 2015). The social media platform Facebook, for example, sells inventory directly to advertisers, who can place their ads using API's or Facebook's Power Editor (a self-serving tool), or request an insertion order through a Facebook representative (IAB, 2015).

2.4.2. Display advertising vs print advertising

Traditional mass media, such as the print, distributes advertising in a one-to-many process, known as broad-casting, with everyone receiving the same message. Online media offer the superior capabilities of targeted marketing and one-to-one marketing, known as narrow casting (Information Resources Management Association, 2012). Advertisers can personalize the advertising messages due to the advances in software and technology, and can easily obtain extensive databases with information about consumers (Information Resources Management Association, 2012). Online media also enable advertisers to track consumers and examine their behaviour when exposed to display ads, by using log files and cookies (Rodgers & Thorson, 2000). This behavioural study is termed Web analytics and helps firms strengthen user engagement and enhance user targeting (Strauss & Frost, 2014).

But digital advertising messages differ from the ones in traditional media, since they need to generate motivation and interest on the consumers for them to interact (e.g. clicking) with the online message (Information Resources Management Association, 2012). Consumers pay less attention to online advertisements when compared to advertisements on other media (Yeu et al., 2013) and, sometimes, they avoid them altogether (C.-H. Cho & Cheon, 2004). Not only marketers need to create adverts that grab the attention of the consumers, they also need to come up with a completely new strategy since the tactics that work well in traditional media may not work as well in digital spaces (Information Resources Management Association, 2012). While doing so, advertisers also need to take extra measures to ensure that the consumer trusts the advertisement. This is due to the lack of credibility that online ads present in relation to the print medium (Marshall & WoonBong, 2003). Because anyone can create an online advertisement, it is more difficult for the consumer to distinguish if the message was produced by a reliable source. Advertisers need to resort to measures such as using a trusted brand and presenting physical addresses to neutralise the lack of credibility by the consumers (Marshall & WoonBong, 2003).

2.4.3. Consumer's reactions to display advertising

Banner ads are usually used to increase the number of visitors of a particular website (Briggs & Hollis, 1997). The attitude towards banner ads is influenced by critical elements. Identifying these elements is an important subject for practitioners and scholars (Wang et al., 2013) since viewing banner ads is related to increased purchase intentions, brand preference and brand awareness among consumers (Briggs & Hollis, 1997).

The success of a banner ad is commonly measured by the click-through rate (Lohtia et al., 2003), yet this metric does not provide any clues about the branding effects. The IAB and comScore Networks have found that an exposure to a banner ad without click-through produces an enhancement in advertising and brand awareness similar to how an ad exposure does in traditional media (Wang et al., 2013). For this reason, brand marketers are progressively demanding more detailed information about their data to produce actionable results (IAB, 2011). One of these crucial information is the number of exposures, as Cho et al. (2001) have demonstrated that multiple exposures of a banner ad increases purchase intentions among consumers, and produce positive attitudes toward the ad and the brand. The duration of the exposure to a banner ad increases brand preference since longer exposure durations increase processing fluency, which, in its turn, increases brand preference (Reber, Winkielman, & Schwarz, 1998). This is especially verified on banner ads that are difficult to process (Wang et al., 2013). The websites where the banner ads are placed also have an important role in consumer's reactions. Putrevu and Lord (2003) argued that consumers with a moderate involvement with the website topic or content facilitates attention to banner ads while a high or low level of involvement hinders attention to banner ads. Moore, Stammerjohan and Coulter (2005) also found that congruent and incongruent contexts between an online ad and the website generate more recall and recognition than moderately congruent contexts.

The banner ad is a type of online advertising format that differs from others on perceived advertising value – consumers find them, for example, less informative, less amusing and more irritating than sponsored content (Tutaj & van Reijmersdal, 2012). However, banner ads are more easily recognized than sponsored content, and are more persuasive than sponsored content (Tutaj & van Reijmersdal, 2012).

2.4.4. Display advertising campaigns on Facebook

Advertisements on Facebook vary in their form according to campaign goals (Figure 2-1). Most formats aim to engage users with content available only on Facebook, but there are also formats

for advertisers that want consumers to visit an external website (Sales Force, 2013). The latter, termed external website ads or domain ads, are the most similar to the traditional display advertisements in their objectives and visual appearance (AdEspresso, 2015; Sales Force, 2013).

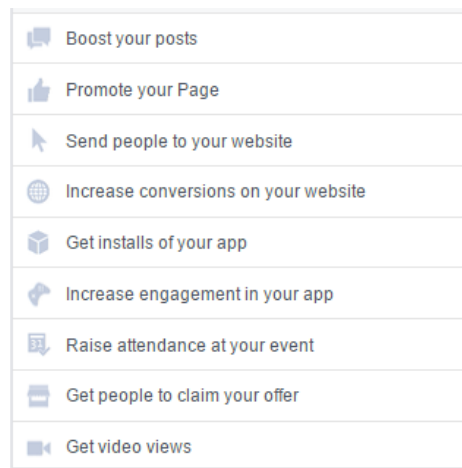


Figure 2-1- Facebook advertising campaign objectives (Facebook, 2015f)

The external website ads on Facebook can be placed on the newsfeed or the right column, and targeted to an audience based on its location, age, gender, interests, language and online behaviours (Facebook, 2015g). Facebook has the online advertising program with more information about consumers since it collects information from user's personal profile, likes and follows (Crazy Egg, 2014). It is possible to remarket to previous website visitors by installing a snippet of code provided by Facebook, displaying the adverts to customers that have already revealed interest (Facebook, 2015i). Advertisers can also use a snippet of code to track users who click the advert and take the desired action in the external website, such as filling a form (Facebook, 2015j).

Display adverts on Facebook are organised in a three-level structure: campaigns, advert sets and adverts (Facebook, 2015b). The first level of Facebook's advert structure is the campaign, defined by the chosen objective (e.g. visit a website). A campaign includes multiple advert sets that represent the specific sub-segments of the target audience, which can be chosen by age, gender, location or interests. On the advert set level, the advertiser also decides where the adverts will appear and the advert budget and schedule. The last level of the structure is the advert, where the advertiser decides on the content such as the image and copy. Each advert set contains multiple adverts (Facebook, 2015b). The elements of the advert change whether it is

placed on the News Feed or the Right Column of Facebook. If the advert is placed on the News Feed, the elements include social information, business name, text, images and videos, and an optional call to action (Facebook, 2015f). When the advert is placed on the Right Column the only available elements are images and videos, and text. These advertising elements follow specific Facebook rules and do not follow the industry standards (Facebook, 2015c; IAB, 2012b).

2.5. Advertising appeals

An advertising appeal is a message that intends to stimulate the consumer to make a purchase (Mueller, 1987). For the consumer to be motivated to action, the message must relate to the consumer’s goals, problems, interests and wants. In traditional media, an appeal was usually supported by the headline and the illustration, and reinforced by the copy (Mueller, 1987). Consequently, the headline and the visual must be taken into consideration when determining an appeal. Advertising messages with different appeals evoke different responses from consumers, e.g. email messages conveying strong emotions are more likely to be forwarded (Phelps et al., 2004).

Advertising appeals can be classified as traditional if they reflect culture, or modern if the advertising themes aim to develop a global consumer culture (Mueller, 1987). Traditional and modern appeals can be further classified into ten types of appeals: group consensus, soft sell, veneration of elderly and traditional, status, oneness with nature, individual and independence, hard sell, youth and modernity, product merit, and manipulation of nature.

Table 2-2 Different types of traditional and modern appeals (Mueller, 1987)

| Traditional Appeals | Modern Appeals |
|---|--|
| <p>Group Consensus Appeal: The emphasis here is on the individual in relation with others, typically the reference group. The individual is depicted as an integral part of the whole. References may be made to significant others. Pressure is on consensus and conformity to the will of the group.</p> <p>Soft Sell Appeal: Mood and atmosphere are conveyed through a beautiful scene or the development of an emotional story or verse. Human emotional sentiments are emphasized over clear-cut product related appeals.</p> | <p>Individual and Independence Appeals: Emphasis is on the individual as being distinct and unlike others. Individuals are depicted as standing out in a crowd, or having the ability to be self-sufficient. Nonconformity, originality and uniqueness are key terms. Dependency is downplayed.</p> <p>Hard Sell Appeals: Sales orientation is emphasized here, stressing brand name and product recommendations. Explicit mention may be made of competitive products, sometimes by name, and the product advantage depends on performance. This appeal includes such statements such as "number one" and "leader."</p> |

| | |
|--|--|
| <p>Veneration of Elderly and Traditional Appeals: Wisdom of the elderly, as well as the veneration of that which is traditional is stressed. Depiction of older group members being asked for advice, opinions and recommendations. Models in such advertisements tend to be older.</p> <p>Status Appeals: Advertisements suggest that the use of a particular product will improve some inherent quality of the user in the eyes of others. Position and rank within the context of the group are stressed. This category also includes foreign status appeals: use of foreign words, phrases, models and foreign celebrity endorsements.</p> <p>Oneness with Nature Appeals: The goodness and beauty of nature are emphasized in relationship with man. Interaction and affinity of man and nature are stressed. The focus is in back-to-nature themes.</p> | <p>Youth and Modernity Appeals: Emphasis is on modernity, deification of the younger generation, often through the depiction of younger models. Stress is on contemporariness and youthful benefits of the products.</p> <p>Product Merit Appeals: Focus is on the product and its characteristics. Some aspect or feature of the product is described in depth. The benefit to the consumer is secondary or implied.</p> <p>Manipulation of Nature Appeals: The theme here is man triumphing over the elements of nature. Man's superiority over nature is reflected, as well as an emphasis on technological achievement.</p> |
|--|--|

Soft-sell and hard-sell appeals have been used in many academic studies and advertising textbooks, and are prominent in cross-cultural studies that compare advertising appeals (Okazaki et al., 2010). Soft-sell appeals lean towards subtle and indirectness, and aims to stimulate an affective reaction from the viewer (Mueller, 1987; Okazaki et al., 2010). On the other hand, hard-sell appeals are usually direct and sales-oriented, and often specify the brand and product recommendations (Mueller, 1987; Okazaki et al., 2010). Soft-sell advertising is a track of research in consumer behaviour that is linked with value-expressive appeals and hard-sell advertising is linked with utilitarian appeals (Johar & Sirgy, 1991). Johar and Sirgy (1991) argued that value-expressive appeals may perform better than utilitarian appeals when the product is highly value-expressive, and that utilitarian appeals may perform better than value-expressive appeals when the product is highly utilitarian. Drolet, Williams and Lau-Gesk (2007) also argued that consumers tend to prefer rational adverts when the need is utilitarian and affective adverts for hedonic needs. Matching product types and arguments enhances persuasiveness, increases message-related behaviour, and leads to more positive attitudes (Lavine & Snyder, 1996). However, Petty and Wegener (1998) shown that matching does not increase persuasion if the arguments present in the ad are considered to be weak.

2.6. Consumer's motivations and product types

When consumers wish to satisfy a certain need, they are motivated to behave in a certain manner (Solomon, 2012). This behaviour aims to reduce or remove the state of tension that the need

created. To reduce the tension created by the need, marketers create products that hold the benefits that the consumers desire (Solomon, 2012).

The need may be hedonic, i.e. comprising emotional reactions or fantasies, or utilitarian, i.e. a need to attain a practical or functional benefit (Solomon, 2012). Similarly, products can be categorised as predominantly hedonic or utilitarian (Okada, 2005). Consumers acquire utilitarian and hedonic products for different motives, therefore they have different consumption goals as well (Chernev, 2004). Utilitarian products satisfy goals more related to functionality, while hedonic products fulfil goals more related to pleasure (Chitturi et al., 2008). When consumers evaluate hedonic products against utilitarian ones, they employ different processing approaches (Melnik et al., 2012). Specifically, they process information cognitively for utilitarian products and affectively for hedonic products (Botti & McGill, 2011).

2.7. Conclusions

Marketers advertise on Facebook because the number of consumers joining this platform is continuously increasing (D. G. Taylor et al., 2011). However, marketers have not figured out how to advertise on this medium in a way that incites users to click the ads instead of ignoring them (Temin & Anderson, 2013). Because there is not an implicit social contract between consumers and advertisers (Gordon & Lima-Turner, 1997), consumers think that online ads interfere with their online activity and impedes their goals (C.-H. Cho & Cheon, 2004). This causes promotional appeals to be very difficult to introduce in online ads. One strategy to improve persuasiveness and generate more positive attitudes is to match arguments to product types (Lavine & Snyder, 1996). Value-expressive appeals should perform better than utilitarian appeals when the product is highly value-expressive, and that utilitarian appeals should perform better than value-expressive appeals when the product is highly utilitarian (Johar & Sirgy, 1991).

In order to help marketers improve the performance of Facebook ads, and following the literature review, I resolved to test some variables that may impact ad performance. With that purpose, some hypotheses were formulated:

H1: Soft-sell appeals have a greater impact on performance than hard-sell appeals.

H2: Hard-sell appeals have a greater impact on performance when the need is utilitarian.

H3: Soft-sell appeals have a greater impact on performance when the need is hedonic.

The methodology used to collect and analyse data – for answering the research questions and testing the hypotheses – is described in the next chapter. The results from the data analysis are discussed on chapter 4.

3. METHODOLOGY

In order to test the proposed research hypotheses, both primary and secondary data were collected and statistically studied. The present chapter details the employed methodology.

3.1. Research approach

The most common methods to research are classified as exploratory, descriptive and explanatory (Saunders, Lewis, & Thornhill, 2009). Exploratory research is used to elucidate the comprehension of a problem, and is usually conducted by searching the literature, interviewing specialists in the topic or organizing focus group interviews (Saunders et al., 2009). Descriptive research aims to provide a factual representation of the topic under investigation, such as an accurate profile of a group (Brotherton, 2008). Explanatory research goes beyond descriptive research by trying to explain the reason why a certain situation is observed and the relationships between the causes and effects (Brotherton, 2008).

The main goal of this dissertation is to define which appeal leads to a better performance of a social media advert according to the need aroused by the product. In order to achieve this goal and answer the research questions formulated in the first chapter, it were implemented both descriptive and explanatory research approaches. Firstly, a descriptive research approach was used. All unique adverts from previous Revshare's Facebook campaigns were classified according to the advertising appeal used and the need aroused by the product. The performance of the campaigns was then compared according to their classification. Secondly, an explanatory research approach was employed. Two A/B split tests were conducted in order to understand how different appeals affect performance according to the need aroused by the advertised product.

3.2. Secondary data

3.2.1. Population

For this stage of the dissertation, the statistical population is defined as 19 Facebook ads from different advertising campaigns launched by Revshare in the Portuguese and Brazilian B2C markets, between April of 2014 and March of 2015.

3.2.2. Data Collection

Revshare provided the data of campaigns occurred in Portugal and Brazil between April of 2014 and March of 2015. The data from 62 Facebook adverts, with an average of approximately

410.000 impressions per ad, was structured in an excel database layout. The data for each campaign includes the reach, impressions, clicks, CTR and CPC. This data was collected by Facebook's Advert Reporting platform, which contains all the information about the performance of the adverts. In order to classify each advert according to the employed advertising appeal and need aroused by the advertised product, 19 adverts were selected and a survey was administrated to 146 respondents to validate the initial assumptions.

3.2.3. Data Analysis

Data from 19 Facebook ads, conducted in Portugal and Brazil in 2014 and 2015, was analysed to exclude outliers and missing values, as well as the data from the survey. The respondents were randomly assigned to one of three groups of questions. Firstly, an ANOVA with repeated measures was used to verify if there were significant statistical differences between the subjects in each group. Secondly, a one-way ANOVA was employed to prove that there were no significant statistical differences between groups. Thirdly, a linear regression model was estimated in order to predict the performance of an advert based on the independent variables "hardness" and "utility". Lastly, independent samples t-tests were conducted to determine if hard-sell and the soft-sell ads' performance changed according to need aroused. All statistical tests assumed a 95% confidence level - α equal to 5%. Annex 7 contains the dependent and independent variables used in the secondary data analysis.

3.3. Primary Data

3.3.1. Data Collection

Following secondary research, an explanatory research approach was applied to test the impact of the variables "advertising appeal" and "need aroused" on the performance of Facebook advertising campaigns. This research consisted of two A/B test experiments designed by Revshare's design department. These experiments consisted of two advertising campaigns, each one with two different adverts for the same product. They were carried out on the first week of May of 2015.

In the first A/B test, one of the adverts had a softer appeal, comprising an appealing and expressive background, and an imaginative and subjective sentence – "Renda-se aos doces sem peso na consciência". The other one had a harder appeal, containing a concrete and precise background, and more descriptive, informative and factual sentences: "Receitas de doces e

sobremesas light”, “Aproveite esta oferta e faça download de forma gratuita!” and “Ebook Gratuito”.

In the second A/B test, the advertised product was a blog. It was not possible to use an image of the product as it was more abstract. The same background was used for both versions, with changing sentences. One of the sentences was more imaginative and subjective – “Luxo, pessoas, marcas, experiências. Kiss and Tell.” -, while the other was more informative and factual – “O blog sobre beleza, lifestyle e tendências, escrito por Rita Ibérico Nogueira.”.

3.3.2. Data Analysis

The A/B test campaigns were conducted between the 11th and 15th of May 2015. The campaigns’ duration was short, but this is considered appropriate to test the impact of the variables since usually the results of a Facebook advertising campaign are determined in the first two or three days of the campaign. The data from these campaigns was analysed to exclude outliers and missing values. Firstly, independent samples t-tests were employed to distinguish the appeal and need aroused by each ad. Secondly, independent samples t-tests were used to tests if the performance of an advert changed based on the independent variable “hardness”. Lastly, independent samples t-tests were conducted to determine if hard-sell and the soft-sell ads’ performance changed according to need aroused. All statistical tests assumed a 95% confidence level - α equal to 5%. Annex 8 contains the dependent and independent variables used in the primary data analysis.

4. RESULTS AND DISCUSSION

This chapter describes and discusses the results from the analysis of the secondary and primary data obtained from online advertising campaigns. The proposed research hypotheses are subsequently tested and the attained results are interpreted.

4.1. Secondary Data

4.1.1. Descriptive statistics analysis – Pre-test surveys

In order to validate the appeals and needs present in the secondary data campaigns, as well as in the designed primary data campaigns, two pre-test surveys were employed. In the first survey, the sample was comprised of 39,7% male respondents and 60,3% female respondents (Table 1), with an average age of 27,51 (Table 2). All respondents were Portuguese.

Table 4-1 Gender frequencies from the sample used in the first pre-test survey

| | Frequency | Valid Percent |
|--------|-----------|---------------|
| Male | 58 | 39,7 |
| Female | 88 | 60,3 |
| Total | 146 | 100,0 |

Table 4-2 Mean age and standard deviation from the sample used in the first pre-test survey

| | N | Minimum | Maximum | Mean | Std. Deviation |
|-----|-----|---------|---------|-------|----------------|
| Age | 146 | 18 | 51 | 27,51 | 7,699 |

The first survey was divided in three groups. Each group contained two sub-groups that displayed seven equal advertisements each, numbered from 1 to 21 (see Annexes 1 and 2). Respondents were randomly assigned to one group and then randomly shown the two sub-groups. In one of the sub-groups they were asked to classify the advertisements by appeal, while in the other sub-group they were questioned about the need aroused by the product present in the advertisement. Both classifications were carried out using a 6-point Likert scale. The advertisements were then ranked by appeal (Annex 3) and by need aroused (Annex 4).

In the second survey, the sample was comprised of 28,1% male respondents and 71,9% female respondents (Table 3), with an average age of 24,94 (Table 4). All respondents were Portuguese.

Table 4-3 Gender frequencies from the sample used in the second pre-test survey

| | Frequency | Valid Percent |
|--------|-----------|---------------|
| Male | 18 | 28,1 |
| Female | 46 | 71,9 |
| Total | 64 | 100,0 |

Table 4-4 Mean age and standard deviation from the sample used in the second pre-test survey

| | N | Minimum | Maximum | Mean | Std. Deviation |
|-----|----|---------|---------|-------|----------------|
| Age | 64 | 19 | 51 | 24,94 | 5,055 |

The second survey was identical to the first survey except in the number of groups. It was divided in two groups, each one containing two sub-groups. One sub-group displayed the advert #22 and the other the advert #23 (see Annex 2). Respondents were randomly assigned to one group and then randomly shown two sub-groups. The ads were added to the tables that contained the ranks by appeal (Annex 3) and by need aroused (Annex 4).

4.1.2. ANOVA with Repeated Measures

Before analysing the secondary data, some tests needed to be conducted regarding the first survey. In the first place, in order to verify if the appeal and need classifications for each ad had significant statistical differences between subjects in each group, an ANOVA with repeated measures was employed. For each group, the dependent variable - which could be hardness or utility - was approximately normally distributed, and the sphericity assumption was not violated. All groups contained ads with different levels for hardness, but also some ads that had no statistical differences between their hardness levels (Annex 5). However, from the ads with equal hardness levels, none presented statistical differences in their utility level (Annex 6). Each of the 19 ads differed from each other both on the hardness level or the utility level, and for that reason each one was indispensable for posterior analysis.

Secondly, the mean hardness and utility levels were compared between groups. Regarding the mean hardness level, there was a statistically significant difference between groups as determined by one-way ANOVA ($F(2,143) = 4.458, p = .013$). A Tukey post-hoc test revealed that the mean hardness level was statistically significantly different between the second group ($3.31 \pm 0.85, p = .019$) and the third group (3.77 ± 0.83). The mean hardness level from the first

group (3.69 ± 0.75) was not statistically significantly different from the mean hardness levels of the second and third group. Regarding the mean utility level, there was a statistically significant difference between groups as determined by one-way ANOVA ($F(2,143) = 12.941$, $p = .000$). A Tukey post-hoc test revealed that the mean utility level from the second group (3.07 ± 0.66) was statistically significantly different from the first group (3.74 ± 0.71 , $p = .000$) and third group (3.74 ± 0.88 , $p = .000$). There were no statistically significant differences between the first and the third group.

Afterwards, the ads designed for primary data collection (#20 and #21) were removed from the analysis. A one-way ANOVA ($F(2,143) = 2.026$, $p = .136$) determined that there was no statistically significant difference between groups regarding the mean hardness level. Regarding the utility level, the results did not differ - there was a statistically significant difference between the same groups as determined by one-way ANOVA ($F(2,143) = 13.182$, $p = .000$). These findings are coherent since the ads were designed to vary in their hardness level, while maintaining the utility level since the product present in these two ads was the same.

4.1.3. Regression Analysis

The average means for hardness and utility levels of each ads were defined as the independent variables, while the click-through and conversion rates were defined as the dependent variables (annex 7). The results from the estimated linear regression models are presented in Table 5.

Table 4-5 Fit and predictive power of the regression model

| Dependent Variable | R ² | Adjusted R ² | F | p-value |
|--------------------------|----------------|-------------------------|-------|---------|
| Click-through Rate (CTR) | 0,006 | -0,118 | 0,050 | 0,951 |
| Conversion Rate (CR) | 0,366 | 0,154 | 1,730 | 0,255 |

The hardness and utility levels are better at predicting the CR than the CTR. However, in general, they are not good predictors as neither model was significant at $p \leq 0.05$.

4.1.4. Independent Samples T-Tests

Independent samples t-tests were employed to determine if hard-sell and the soft-sell ads' performance changed according to need aroused. For the purpose of this analysis, the ads with a hardness level above the cut point (3.5) were considered hard-sell, and the ones below were considered soft-sell. The ads in which the aroused need had a utility level above the cut point (3.5) were considered utilitarian, and the ones below were considered hedonic. An independent

samples t-test determined that the hard-sell utilitarian ads ($1.40\% \pm 0.99$) did not have a statistically significantly different CTR when compared to the hard-sell hedonic ads ($0.59\% \pm 0.44$), $t(10) = 1.699$, $p = 0.120$. The hard-sell utilitarian ads ($0.74\% \pm 0.32$) also did not have a statistically significantly different CR when compared to the hard-sell hedonic ads ($0.01\% \pm 0.00$), $t(3) = 3.130$, $p = 0.052$.

Regarding the soft sell ads, an independent samples t-test determined that the soft-sell utilitarian ads ($0.51\% \pm 0.51$) did not have a statistically significantly different CTR when compared to the soft-sell hedonic ads ($1.88\% \pm 1.45$), $t(5) = 1.550$, $p = 0.182$. The soft-sell utilitarian ads ($0.12\% \pm 0.14$) also did not have a statistically significantly different CR when compared to the soft-sell hedonic ads ($0.23\% \pm 0.26$), $t(2) = 0.510$, $p = 0.660$.

4.2. Primary Data

4.2.1. Independent Samples T-Tests for ad classifications

The primary data consisted of two advertising campaigns. One campaign, optimized for conversions, contained the ads #20 and #21. Regarding the hardness level, an independent samples t-test determined that the ad #20 (3.61 ± 0.98) had a statistically significantly higher hardness level compared to the ad #21 (2.52 ± 0.97), $t(99) = 5.591$, $p = 0.000$. Because the ad #20 mean hardness level is above the cut point (3.5), it was considered hard sell for the purpose of this thesis. The ad #21 mean hardness level is below the cut point, so it was considered soft sell. Regarding the utility level, an independent samples t-test determined that the ad #20 (4.31 ± 1.19) had a statistically significantly higher utility level compared to the ad #21 (3.52 ± 1.18), $t(99) = 3.361$, $p = 0.001$. However, the ads #20 and #21 mean utility levels were above the cut point, and for that reason the need aroused in both was considered utilitarian.

The other campaign, optimized for likes, contained the ads #22 and #23. Regarding the hardness level, an independent samples t-test determined that the ad #22 (2.64 ± 1.27) had a statistically significantly lower hardness level compared to the ad #23 (3.64 ± 1.48), $t(70) = 3.081$, $p = 0.003$. Because the ad #23 mean hardness level is above the cut point (3.5), it was considered hard sell, while the ad #22 was considered soft sell. Regarding the utility level, an independent samples t-test determined that the ad #22 (1.95 ± 1.17) did not have a statistically significantly different utility level compared to the ad #23 (1.97 ± 0.984), $t(70) = 0.082$, $p = 0.935$. As the ads #22 and #23 mean utility levels were below the cut point, the need aroused in both was considered hedonic.

4.2.2. Independent Samples T-Tests for performance measuring

Table 6 presents the performance metrics used in the advertising campaign optimized for conversions. Table 7 presents the performance metrics used in the advertising campaign optimized for likes. Both campaigns were conducted to test the impact of ad hardness and need aroused by the advertised product on the performance metrics. The campaigns were ran under controlled conditions, specifically keeping equal timeframes, target audiences, products and placements.

Table 4-6 Performance metrics of the primary data campaign optimized for conversions, per ad

| Ad | Start Date | End Date | Impressions | Clicks | CTR | Conversions | Conversion Rate |
|----------------------------|------------|------------|-------------|--------|----------|-------------|-----------------|
| Ad #20 (Hard Sell Version) | 2015-05-11 | 2015-05-14 | 13872 | 306 | 0.022059 | 42 | 0.003028 |
| Ad #21 (Soft Sell Version) | 2015-05-11 | 2015-05-14 | 16963 | 458 | 0.027000 | 65 | 0.003832 |

Table 4-7 Performance metrics of the primary data campaign optimized for likes, per ad

| Ad | Start Date | End Date | Impressions | Clicks | CTR | Likes | Like Rate |
|----------------------------|------------|------------|-------------|--------|----------|-------|-----------|
| Ad #22 (Soft Sell Version) | 2015-05-11 | 2015-05-15 | 14200 | 349 | 0.024577 | 242 | 0.017042 |
| Ad #23 (Hard Sell Version) | 2015-05-11 | 2015-05-15 | 13386 | 359 | 0.026819 | 231 | 0.017257 |

The first tests examined if there were performance differences between hard sell and soft sell ads. Regarding the campaign optimized for conversions, an independent samples t-test determined that the ad #20 ($2.11\% \pm 0.71$) did not have a statistically significantly different CTR when compared to the ad #21 ($3.12\% \pm 1.04$), $t(6) = -1.594$, $p = 0.162$. An independent samples t-test determined that the ad #20 ($0.20\% \pm 0.15$) did not have a statistically significantly different CR when compared to the ad #21 ($0.46\% \pm 0.20$), $t(6) = -2.103$, $p = 0.080$. Regarding the campaign optimized for likes, an independent samples t-test determined that the ad #22 ($2.83\% \pm 0.49$) did not have a statistically significantly different CTR when compared to the ad #23 ($2.52\% \pm 0.48$), $t(8) = -1.023$, $p = 0.336$. An independent samples t-test determined that the ad #22 ($1.92\% \pm 0.58$) did not have a statistically significantly different CR when compared to the ad #23 ($1.79\% \pm 0.44$), $t(8) = -0.404$, $p = 0.697$.

The subsequent tests examined if the hard sell and the soft sell ads' performance changed according to need aroused. Regarding the hard sell ads, an independent samples t-test determined that the ad #20 ($2.11\% \pm 0.71$) did not have a statistically significantly different

CTR when compared to the ad #23 ($2.52\% \pm 0.48$), $t(7) = -1.034$, $p = 0.335$. Regarding the soft sell ads, an independent samples t-test determined that the ad #21 ($3.12\% \pm 1.04$) did not have a statistically significantly different CTR when compared to the ad #22 ($2.83\% \pm 0.49$), $t(7) = 0.550$, $p = 0.600$.

4.3. Summary and discussion of the statistical analyses results

The preceding analysis was conducted in order to answer the proposed research questions and respective hypothesis:

- RQ1: Which advertising appeal has a greater impact on performance?
 - H1: Soft-sell appeals have a greater impact on performance than hard-sell appeals.

For the given collected sample and the performed analysis, none of the appeals had a significant greater impact on the performance of the ads when compared to the other. It was not expected that both appeals would have the same impact on performance. Okazaki, Muller and Taylor (2010) shown that soft-sell appeals lead to more positive attitudes towards the ad and more purchase intentions than the hard-sell appeal. For that reason, it was expected that more consumers would click on the ad and convert when the appeal was soft-sell.

- RQ2: Do hard-sell appeals have a greater impact on performance according to the need aroused by the advertised product?
 - H2: Hard-sell appeals have a greater impact on performance when the need is utilitarian.

From the secondary and primary data analysis, it was determined that the impact of a hard-sell appeal is not affected by the need aroused by the advertised product. This result was not expected as consumers usually prefer rational adverts when the need is utilitarian (Drolet et al., 2007). Because a hard-sell appeal is more related to a rational advert, it was expected that a utilitarian need would improve the performance of the hard-sell ads. However, secondary data analysis revealed that hard-sell utilitarian ads would only have a statistically significantly greater CR when compared to hard-sell hedonic ads if the p-value was 10%.

- RQ3: Do soft-sell appeals have a greater impact on performance according to the need aroused by the advertised product?
 - H3: Soft-sell appeals have a greater impact on performance when the need is hedonic.

By analysing the collected data, it was determined that the impact of a soft-sell appeal is not affected by the need aroused by the advertised product. Again, this result was not expected as consumers tend to prefer affective ads when the need is hedonic (Drolet et al., 2007). A soft-sell ad is similar to an affective one, so it was expected that a hedonic need would improve the performance of the soft-sell ads.

5. CONCLUSIONS AND LIMITATIONS

The following chapter exposes the main conclusions and limitations derived from the research work conducted in this dissertation.

5.1. Conclusions

Companies are investing more in online media for advertising while reducing the spending in traditional media (Beard & Yang, 2011). The underlying principle for this decision is that sales can be effectively increased on online channels while lowering the costs and/or improving ROI (Fulgoni & Lipsman, 2014). Social media are one type of online channels with a constantly increasing user base, rendering them a strong choice for marketers that need to invest in advertising (Taylor et al., 2011). Facebook is the largest medium among the social media, with more than 1 billion users (Cocotas, 2013), consequently being an attractive channel for advertisers. However, benchmarks reveal that Facebook presents a much lower CTR when compared to other online channels, clearly below the industry average (Sizmek, 2014). One method to improve the performance of Facebook ads is to match the advertising appeal to the product type (Lavine & Snyder, 1996).

This dissertation aimed to answer the proposed research questions and hypotheses:

RQ1: Which advertising appeal has a greater impact on performance?

H1: Soft-sell appeals have a greater impact on performance than hard-sell appeals.

While it was expected that ads containing soft-sell appeals would perform better than hard-sell appeals, the first hypothesis was not accepted. According to secondary data, performance could not be explained by the type of appeal utilised. The same result was achieved with primary data, however, in one of the tests, the conversion rates between the hard-sell and the soft-sell ad could have been statistically different if p-value was equal to 10%. It was evident that the appeal type did not influence the CTR, but the results were inconclusive regarding the CR since only one of the tests presented differences. Since soft-sell appeals generate more positive attitudes and purchase intentions than the hard-sell appeal, this hypothesis may have not been corroborated because the employed soft-sell appeals should have been softer, and/or the hard-sell appeals should have been harder.

RQ2: Do hard-sell appeals have a greater impact on performance according to the need aroused by the advertised product?

H2: Hard-sell appeals have a greater impact on performance when the need is utilitarian.

The second hypothesis was also not accepted because, for hard-sell appeals, none of the different needs had a greater impact on performance when compared to one another. According to Lavine and Snyder (1996), matching an argument to the product type should result in an increase in performance because of the increased message-related behaviour, improved attitudes and enhanced persuasiveness. The reason why this was not observed may be that the need was not sufficiently utilitarian, since Johar and Sirgy (1991) argued that utilitarian appeals may perform better than value-expressive appeals when the product is highly utilitarian. It could be postulated that hard-sell appeals do not have a better impact on performance for low or moderate levels of utility. However, regarding only secondary data, and if the considered p-value was 10%, the hard-sell appeal would display a better CR when the need was utilitarian than when the need was hedonic. This results was not observed in primary data. It is also to note that the most important metric (CTR) did not present statistical differences for hard-sell appeals with different aroused needs.

RQ3: Do soft-sell appeals have a greater impact on performance according to the need aroused by the advertised product?

H3: Soft-sell appeals have a greater impact on performance when the need is hedonic. The third hypothesis was also not accepted. This present result may be explained by the same reasons presented for the second hypothesis. Value-expressive appeals should perform better than utilitarian appeals when the product is highly value-expressive (Johar & Sirgy, 1991). In this case, the need may not have been hedonic highly enough. Another possible explanation may be related to mismatching. Klein and Melnyk observed that mismatching arguments and product types may enhance information processing when the products are utilitarian, but no improvements were observed when the products were hedonic. This could mean that none advertising appeals would improve performance for hedonic products.

5.2. Limitations and Future Research

Hard-sell and soft-sell appeals are broad and multidimensional concepts that should be measured individually (Okazaki et al., 2010). While the appeals were measured individually for the present dissertation, they were not measured using the same items and factor indexes validated by Okazaki, Mueller and Taylor (2010) since it would make the pre-test survey excessively extensive. This limitation could introduce some fluctuations in the classifications of the appeals. Additionally, the primary data consisted of only two advertising campaigns, one optimized for conversions, and the other optimized for likes. This number of campaigns was

not sufficient to make conclusive remarks regarding the comparative conversion rate and like rate of ads with different appeals and different consumer's needs. Another limitation was the degree of hardness and softness of the ads used for primary data collection. It was difficult for the hard-sell version of the ads to be predominantly hard since it was not possible to use arguments such as "the best in the market". The soft-sell version of the ads were also not predominantly soft because the consumers did not have any prior knowledge regarding the advertised brand and product, so it was not possible to employ too much abstraction. Furthermore, the products advertised on ads for primary data collection – an eBook and a blog – were difficult to categorize as hedonic or utilitarian as they can both satisfy different needs. Finally, all advertising campaigns were ran in only one channel and optimized for conversions, except for one of the campaigns employed for primary data collection, which was optimized for likes. However, advertising campaigns may be optimized for other goals, such as branding. Therefore, the conclusions present in this dissertation should not be generalized to other campaign goals and to other channels.

For these limitations to be overcome, future researchers may wish to experimentally study the subsequent effects on the comparative performance of ads:

- using high levels of hardness and high levels of softness, instead of low or moderate levels;
- using products with a high level of utility, and products with a high level of hedonism, instead of low or moderate levels;
- using different online social media;
- using advertising appeals other than hard-sell and soft-sell.

It would be interesting to confirm if matching arguments and products improves performance on Facebook when the arguments and the products are better categorized. It would also be interesting to verify if the matching would improve performance of ads on other social media, for any level of hardness and softness, and any level of utility and hedonism. This findings would benefit marketers looking to improve the performance of social media ads.

REFERENCES

- AdEspresso. (2015). Types of Facebook Ads. Retrieved March 23, 2015, from <http://adespresso.com/academy/guides/facebook-ads-beginner/facebook-ads-types/>
- Beard, F. K., & Yang, A. (2011). Choosing and Evaluating Digital and Online Media: A Conceptual/Instructional Model. *Journal of Advertising Education*, 15(2), 5–13. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=76475176&site=ehost-live>
- Benway, J. P. (1999). *Banner Blindness: What Searching Users Notice and Do Not Notice on the World Wide Web*. Rice University.
- Bergh, B. G., Lee, M., Quilliam, E. T., & Hove, T. (2011). The multidimensional nature and brand impact of user-generated ad parodies in social media. *International Journal of Advertising*, 30(Lessig 2008), 103. <http://doi.org/10.2501/IJA-30-1-103-131>
- Botti, S., & McGill, A. N. N. L. (2011). The Locus of Choice : Personal Causality and Satisfaction with Hedonic and Utilitarian Decisions, 37(April), 1065–1079. <http://doi.org/10.1086/656570>
- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13, 210–230. <http://doi.org/10.1111/j.1083-6101.2007.00393.x>
- Briggs, R., & Hollis, N. (1997). Advertising on the web: Is there response before click-through? *Journal of Advertising Research*, 37, 33–45.
- Brito, M. (2013). Your Content Strategy: Defining Paid, Owned and Earned Media. Retrieved April 17, 2015, from <http://blog.hootsuite.com/converged-media-brito-part-1/>
- Bronner, F., & de Hoog, R. (2011). Vacationers and eWOM: Who Posts, and Why, Where, and What? *Journal of Travel Research*, 50(1), 15–26. <http://doi.org/10.1177/0047287509355324>
- Brotherton, B. (2008). *The Nature and Relevance of Research*. SAGE Publications Ltd.
- Bumgarner, B. (2007). You have been poked: Exploring the uses and gratifications of Facebook among emerging adults. Retrieved March 8, 2015, from <http://firstmonday.org/ojs/index.php/fm/article/view/2026/1897#b10>
- Burmann, C. (2010). A call for “User-Generated Branding.” *Journal of Brand Management*, 18(1), 1–4. <http://doi.org/10.1057/bm.2010.30>
- Chernev, A. (2004). Goal-Attribute Compatibility in Consumer Choice, 14, 141–150.
- Chitturi, R., Raghunathan, R., & Mahajan, V. (2008). Delight by Design : The Role of, 72(May), 48–63.
- Cho, C. H., Lee, J. G., & Tharp, M. (2001). Different forced-exposure levels to banner advertisements. *Journal of Advertising Research*, 41(4), 45–56.

- Cho, C.-H., & Cheon, H. J. (2004). Why do people avoid advertising on the internet? *Journal of Advertising*, 33(Winter), 89–97. <http://doi.org/http://www.jstor.org/stable/4189279>
- Chu, S.-C., & Kim, Y. (2011). Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. *International Journal of Advertising*, 30(1), 47. <http://doi.org/10.2501/IJA-30-1-047-075>
- Clemons, E. K. (2009). The complex problem of monetizing virtual electronic social networks. *Decision Support Systems*, 48(1), 46–56. <http://doi.org/10.1016/j.dss.2009.05.003>
- Cocotas, A. (2013). The Social Media Advertising Ecosystem Explained. Retrieved March 5, 2015, from <http://www.businessinsider.com/state-of-social-media-advertising-2013-7>
- Crazy Egg. (2014). Facebook Ads vs Google Adwords – the Facebook Targeting Advantage. Retrieved March 5, 2015, from <http://blog.crazyegg.com/2014/05/15/facebook-ads/>
- Dao, W. V. T., Le, A. N. H., Cheng, J. M. S., & Chen, D. C. (2014). Social media advertising value: The case of transitional economies in Southeast Asia. *International Journal of Advertising*, 33(2), 271–294. <http://doi.org/10.2501/IJA-33-2-271-294>
- Drolet, A., Williams, P., & Lau-Gesk, L. (2007). Age-related differences in responses to affective vs. rational ads for hedonic vs. utilitarian products. *Marketing Letters*, 18, 211–221. <http://doi.org/10.1007/s11002-007-9016-z>
- Duggan, M., Ellison, N. B., Lampe, C., Lenhart, A., & Madden, M. (2015). Social Media Update 2014. Retrieved March 20, 2015, from <http://www.pewinternet.org/2015/01/09/social-media-update-2014/>
- Edwards, S. M., Li, H., & Lee, J.-H. (2002). Forced Exposure and Psychological Reactance: Antecedents and Consequences of the Perceived Intrusiveness of Pop-up Ads. *Journal of Advertising*, 31(3), 83–95. <http://doi.org/10.2307/4189228>
- Facebook. (2015a). About Advertising on Facebook. Retrieved April 17, 2015, from <https://www.facebook.com/about/ads/>
- Facebook. (2015b). Adverts Reporting: Campaign Structure. Retrieved April 5, 2015, from <https://www.facebook.com/business/learn/facebook-ads-reporting-campaign-structure>
- Facebook. (2015c). Clicks to Website: Links. Retrieved April 17, 2015, from <https://www.facebook.com/business/ads-guide/clicks-to-website/links/>
- Facebook. (2015d). Company Info. Retrieved March 25, 2015, from <http://newsroom.fb.com/company-info/>
- Facebook. (2015e). Design ads that work on Facebook with these 10 tips. Retrieved March 7, 2015, from <https://www.facebook.com/help/337584869654348>
- Facebook. (2015f). Facebook Ads Guide. Retrieved March 5, 2015, from <https://www.facebook.com/business/ads-guide/clicks-to-website/links/>
- Facebook. (2015g). Facebook Adverts Basics. Retrieved March 23, 2015, from <https://www.facebook.com/business/learn/facebook-ads-basics/>

- Facebook. (2015h). Products. Retrieved April 17, 2015, from <http://newsroom.fb.com/products/>
- Facebook. (2015i). Remarketing to Website Visitors. Retrieved April 5, 2015, from <https://www.facebook.com/business/learn/facebook-ads-website-custom-audiences/>
- Facebook. (2015j). Tracking Actions on Your Website. Retrieved April 5, 2015, from <https://www.facebook.com/business/learn/facebook-ads-website-conversions/>
- Facebook. (2015k). Using the Facebook Ads Guide. Retrieved March 26, 2015, from <https://www.facebook.com/help/458369380926902/>
- Flosi, S., Fulgoni, G., & Vollman, A. (2013). If an Advertisement runs online and no one sees it, Is it still an Ad? Empirical generalizations in digital advertising. *Journal of Advertising Research*, 53(2), 192–199. <http://doi.org/10.2501/JAR-53-2-192-199>
- Fulgoni, G., & Lipsman, A. (2014). Numbers, please: Digital game changers: How social media will help usher in the era of mobile and multi-platform campaign-effectiveness measurement. *Journal of Advertising Research*, 54(June 2010), 11–16. <http://doi.org/10.2501/JAR-54-1-011-016>
- Fulgoni, G. M., & Mörn, M. P. (2009). Whither the click: How online advertising works. *Journal of Advertising Research*, 49. <http://doi.org/10.2501/S0021849909090175>
- Google. (2015). Real-time bidding overview. Retrieved March 30, 2015, from <https://support.google.com/adxbuyer/answer/6136272?rd=1>
- Gordon, M. E., & Lima-Turner, K. (1997). Consumer attitudes towards Internet advertising: A social contract perspective. *International Marketing Review*, 14(5), 362–375.
- Haans, H., Raassens, N., & van Hout, R. (2013). Search engine advertisements: The impact of advertising statements on click-through and conversion rates. *Marketing Letters*, 24, 151–163. <http://doi.org/10.1007/s11002-013-9226-5>
- Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing*, 18(1), 38–52. <http://doi.org/10.1002/dir.10073>
- IAB. (2011). *Best Practices for Conducting Online Ad Effectiveness Research*. Retrieved from <http://www.iab.net/media/file/BestPracticesForAdEffectivenessStudies.pdf>
- IAB. (2012a). Ad Network. Retrieved from http://www.iab.net/wiki/index.php/Ad_network
- IAB. (2012b). Display Advertising Guidelines. Retrieved March 5, 2015, from <http://www.iab.net/guidelines/508676/508767/displayguidelines>
- IAB. (2012c). IAB Releases New Standard Ad Unit Portfolio. Retrieved from http://www.iab.net/about_the_iab/recent_press_releases/press_release_archive/press_release/pr-020226_adportfolio
- IAB. (2015). Social Media Buyer's Guide. Retrieved March 30, 2015, from <http://www.iab.net/socialmediabuyersguide/>

- IAB UK. (2012a). The Evolution of Online Display Advertising. Retrieved from <http://www.iabuk.net/video/the-evolution-of-online-display-advertising>
- IAB UK. (2012b). The Guide to Display Advertising. Retrieved from <http://www.iabuk.net/sites/default/files/IABGuidetoDisplayAdvertising.pdf>
- IAB/PwC. (2014). Internet Ad Revenue Report, HY2014. Retrieved from Interactive Advertising Bureau. Retrieved March 5, 2015, from http://www.iab.net/media/file/IAB_Internet_Advertising_Revenue_Report_HY_2014_PDF.pdf
- Information Resources Management Association. (2012). *E-Marketing: Concepts, Methodologies, Tools, and Applications: Concepts, Methodologies, Tools, and Applications*. IGI Global.
- Ivkovic, E. (2010). Common Online Marketing Campaign Goal & Objective Examples. Retrieved April 17, 2015, from <http://www.dragonsearchmarketing.com/common-online-marketing-campaign-goal-objective-examples/#sthash.2gZiofKQ.dpuf>
- Johar, J. S., & Sirgy, M. J. (1991). Value-Expressive Versus Utilitarian Advertising Appeals: When And Why To Use Which Appeal. *Journal of Advertising*, 20(3), 23–33. <http://doi.org/Article>
- Kelly, L., Kerr, G., & Drennan, J. (2010). Avoidance of Advertising in Social Networking Sites: The Teenage Perspective. *Journal of Interactive Advertising*, 10(2), 16–27. <http://doi.org/10.1016/j.intmar.2009.07.005>
- Lafferty, J. (2014). Facebook changes default privacy settings for new users to friends-only. Retrieved March 25, 2015, from <http://www.adweek.com/socialtimes/facebook-changes-default-privacy-settings-for-new-users-to-friends-only/299401>
- Lavine, H., & Snyder, M. (1996). Cognitive Processing and the Functional Matching Effect in Persuasion : The Mediating Role of Subjective Perceptions of Message Quality. *Journal of Experimental Social Psychology*, 60(4), 580–604.
- Lohtia, R., Donthu, N., & Hershberger, E. K. (2003). The impact of content and design elements on banner advertising click-through rates. *Journal of Advertising Research*, 43, 410–418. <http://doi.org/10.1017/S0021849903030459>
- Madrigal, A. (2013). Why Do People Use Facebook? Retrieved March 8, 2015, from <http://www.theatlantic.com/technology/archive/2013/04/why-do-people-use-facebook/274721/>
- Marshall, R., & WoonBong, N. (2003). An experimental study of the role of brand strength in the relationship between the medium of communication and perceived credibility of the message. *Journal of Interactive Marketing*, 17(3), 75–79. <http://doi.org/10.1002/dir.10061>
- Melnyk, V., Klein, K., & Völckner, F. (2012). The Double-Edged Sword of Foreign Brand Names for Companies from, 76(November), 21–37.
- Moore, R. S., Stammerjohan, C. A., & Coulter, R. a. (2005). Banner Advertiser-Web Site Context Congruity and Color Effects on Attention and Attitudes. *Journal of Advertising*, 34(2), 71–84. <http://doi.org/10.1080/00913367.2005.10639189>
- Mueller, B. (1987). Reflections of Culture: An Analysis of Japanese and American Advertising Appeals. *Journal of Advertising Research*, 27(3), 51–59.

- Muntinga, D. G., Moorman, M., & Smit, E. G. (2011). Introducing COBRAs: Exploring motivations for brand-related social media use. *International Journal of Advertising*, 30(1), 13. <http://doi.org/10.2501/IJA-30-1-013-046>
- Okada, E. M. (2005). Justification Effects on Consumer Choice of Hedonic and Utilitarian Goods, *XLII*(February), 43–53.
- Okazaki, S., Mueller, B., & Taylor, C. R. (2010). Measuring Soft-Sell Versus Hard-Sell Advertising Appeals. *Journal of Advertising*, 39(February 2015), 5–20. <http://doi.org/10.2753/JOA0091-3367390201>
- Olson, J. C., & Celsi, R. L. (1988). The Role of Involvement in Attention and Comprehension Processes, *15*(2), 210–224.
- Petty, R., & Wegener, D. (1998). Matching Versus Mismatching Attitude Functions: Implications for Scrutiny of Persuasive Messages. *Personality and Social Psychology Bulletin*, 24(3), 227–240.
- Phelps, J. E., Lewis, R., Mobilio, L., Perry, D., & Raman, N. (2004). Viral Marketing or Electronic Word-of-Mouth Advertising: Examining Consumer Responses and Motivations to Pass Along Email. *Journal of Advertising Research*, 44(4), 333–48.
- Putrevu, S., & Lord, K. (2003). Processing Internet Communications : A Motivation , Opportunity and Ability Framework Processing Internet Communications : A Motivation , Opportunity and Ability Framework. *Journal of Current Issues & Research in Advertising*, 25(1), 45–59. <http://doi.org/10.1080/10641734.2003.10505140>
- Reber, R., Winkielman, P., & Schwarz, N. (1998). EFFECTS OF PERCEPTUAL FLUENCY ON AFFECTIVE JUDGMENTS, 9(1), 45–49.
- Riegner, C. (2007). Word of mouth on the web: The impact of web 2.0 on consumer purchase decisions. *Journal of Advertising Research*, 47(4). <http://doi.org/10.2501/S0021849907070456>
- Rodgers, S., & Thorson, E. (2000). The Interactive Advertising Model. *Journal of Interactive Advertising*, 1(1), 41–60. <http://doi.org/10.1080/15252019.2000.10722043>
- Sales Force. (2013). The Facebook Ads Benchmark Report. Retrieved March 5, 2015, from <https://www.salesforcemarketingcloud.com/wp-content/uploads/2013/06/The-Facebook-Ads-Benchmark-Report.pdf>
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods For Business Students* (5th ed.). Harlow: Pearson Education.
- Sizmek. (2014). Sizmek benchmarks report 2014. Retrieved March 5, 2015, from http://www.sizmek.com/assets/pdf/Sizmek_2014-03_Benchmarks_report.pdf
- Solomon, M. (2012). *Consumer Behavior: Buying, Having and Being* (10th ed.). Pearson Higher Education.
- Strauss, J., & Frost, R. (2014). *E-Marketing* (7th ed.). Harlow: Person Education.
- Taylor, C. R. (2009). The six principles of digital advertising. *International Journal of Advertising*, 28(3), 411–418. <http://doi.org/10.2501/S0265048709200679>

- Taylor, D. G., Lewin, J. E., & Strutton, D. (2011). Friends, fans, and followers: Do ads work on social networks? How gender and age shape receptivity. *Journal of Advertising Research*, 51(March), 258–276. <http://doi.org/10.2501/JAR-51-1-258-275>
- Temin, D., & Anderson, I. (2013). Don't Waste Money - Make Your Social Media Advertising Smarter, More Original, More Effective. Retrieved from <http://www.forbes.com/sites/daviatemin/2013/12/03/dont-waste-money-make-your-social-media-advertising-smarter-more-original-more-effective/>
- Tutaj, K., & van Reijmersdal, E. a. (2012). Effects of online advertising format and persuasion knowledge on audience reactions. *Journal of Marketing Communications*, 18(February 2015), 5–18. <http://doi.org/10.1080/13527266.2011.620765>
- Vaughan, P. (2012). An Introduction To Inbound Marketing Analytics. Retrieved April 17, 2015, from <http://cdn2.hubspot.net/hub/53/blog/docs/ebooks/introduction-to-marketing-analytics.pdf>
- Wang, K. Y., Shih, E., & Peracchio, L. a. (2013). How banner ads can be effective: Investigating the influences of exposure duration and banner ad complexity. *International Journal of Advertising*, 32(1), 121–141. <http://doi.org/10.2501/IJA-32-1-121-141>
- WordStream. (n.d.). Online Ads: A Guide to Online Ad Types and Formats. Retrieved from <http://www.wordstream.com/online-ads#Banner Ads>
- Yang, K. (2003). Internet Users' Attitudes Toward and Beliefs About Internet Advertising. *Journal of International Consumer Marketing*, 15(4), 43–65. http://doi.org/10.1300/J046v15n04_03
- Yaveroglu, I., & Donthu, N. (2008). Advertising Repetition and Placement Issues in On-Line Environments. *Journal of Advertising*, 37(March 2015), 31–44. <http://doi.org/10.2753/JOA0091-3367370203>
- Yeu, M., Yoon, H.-S., Taylor, C. R., & Lee, D.-H. (2013). Are Banner Advertisements in Online Games Effective? *Journal of Advertising*, 42(February 2015), 241–250. <http://doi.org/10.1080/00913367.2013.774604>

ANNEX 1 – Adverts from Secondary Data

Advert #1:

 **Receitas de Cozinha**
Sponsored · 

[Like Page](#)

Junte-se à comunidade Receitas de Cozinha e Receba 1 Livro Grátis de Boas Vindas!



AS MELHORES SALADAS DO VERAO
Faça Download Grátis.

Livro de Receitas Grátis
Registe-se na comunidade Receitas de Cozinha e Receba Grátis e Sem Compromisso o Livro de Receitas de Saladas.
RECEITASDECOZINHA.NET

Like · Comment · Share ·  244  9  31

Advert #2:

 **Lemonaid**
Sponsored · 

[Like Page](#)

Espreite o Menu de Natal que preparámos especialmente para si.



Menu de Natal
MENUNATAL.LEMONAID.PT

[Download](#)

Like · Comment · Share ·  30  5  2

Advert #3:



Ducha LED por R\$159,90
clickmart.com.br
Ducha/Chuveiro Quadrada LED 3 Cores!
de R\$ 319,90 por R\$ 159,90! Compre Hoje!

Advert #4:



Receitas de Cozinha Sponsored · 🌐 Like Page

Vamos oferecer vales Continente no valor de 50 €. Só tens que te registar aqui. Boa Sorte!

Ganha Vales Continente
PARTNERS.MIDIA-MAIL.COM

Like · Comment · Share · 👍 33 💬 2

Advert #5:



Phone House
OFERTA NA ADESAO A UM NOVO PACOTE
NOS

Oferta Phone House
nos.pacotesphonehouse.pt
Se nas resoluções para 2015 estava poupar, então adere a um novo pacote TV da NOS.

Advert #6:



30 Receitas de Cozinha
Sponsored · Like Page

Estamos a oferecer um Robot de Cozinha. Só tens que te registar aqui.
Boa Sorte!



Ganha um Robot de Cozinha
WWW.RECEITASDECOZINHA.NET

Like · Comment · Share · 2,173 · 103 · 176

Advert #7:

 **Portal das Vidências Brasil** Like Page
Sponsored · 🌐

Solicite aqui a sua Vidência Gratuita. Receba imediatamente o resultado no seu email.



CONSULTA GRÁTIS

Consulta Tarot Gratuita

WWW.PORTALVIDENCIAS.COM.BR Learn More

Like · Comment · Share · 👍 25 💬 1

Advert #8:



Passatempo AEG
aeg.com.pt
O que é para si a Precisão? Responda à pergunta e habilite-se a ganhar o livro Casa Feliz!

Advert #9:



8 Lumiárias por 6xR\$8,32
clickmart.com.br
Kit 8 Luminárias Solar de Jardim em Inox,
de R\$ 199,90 por R\$ 49,90. Compre Já!

Advert #10:



COMECE JÁ A POUPAR
nos seus iogurtes favoritos!

DESCONTO 0,20€

Vales de Desconto Danone
perf.alimentasorrisos.pt
Comece já a poupar nos seus iogurtes favoritos!

Advert #11:



Pix Brasil
Patrocinado

Quer aquecer ou resfriar? Leve para qualquer lugar!

MINI GELADEIRA
LEVE PARA QUALQUER LUGAR.
IDEAL PARA VOCÊ!

Por **R\$ 299,90**
em até 10x

Mini Geladeira Portátil
Ideal para viagens, escritório, casa. Ideal para você! Comporta até 6 latas. Pode aquecer a mamadeira. Funciona no carro 110V/220V.

WWW.PIXBRASIL.COM/LOJAMINIGELADEIRA

Comprar agora

Curtir - Comentar - Compartilhar - 1 2

Advert #12:



Goji Berry Barriga Sexy
gojiberryactive.info
Corpo Leve, Barriga Leve em 2014. Goji Berry Compre Já!

Advert #13:

 **Pix Brasil**
Patrocinado · 

 Curtir Página

Cansado de limpar seu sofá? Proteja contra pêlos de animais.



Capa Protetora para Sofá
Protetor de Sofá de 2+3 lugares com porta controles. Disponível em 3 cores.
Envio imediato. Pague em até 10x.

WWW.PIXBRASIL.COM/LOJA/PROTETORDESOFÁ 

Curtir · Comentar · Compartilhar ·  14  5  3

Advert #14:

 **Pix Brasil**
Patrocinado · 

[Curtir Página](#)

Quer fazer sorvete caseiro? Coloque a fruta e pronto!



Máquina de fazer Sorvete

Faça deliciosas sobremesas em instantes. Agora você vai criar 1001 receitas e combinações naturais e saudáveis para toda a sua família.

WWW.PIXBRASIL.COM/LOJAYOFRUITPROMO [Comprar agora](#)

Advert #15:

 **Proteste**
Patrocinado · 

[Gostar da Página](#)

Teste a velocidade da sua internet e faça valer seus direitos.



Sua Internet está lenta?

A PROTESTE detectou através de vários testes que a velocidade da internet banda larga fica abaixo da contratada por diversas vezes. Utilize nossa ferramenta para fazer valer os seus direitos!

WWW.TESTEMINHAINTERNET.COM.BR/ [Saber mais](#)

Gosto · Comentar · Partilhar ·  104  63  28

Advert #16:

 **Receitas de Cozinha** Patrocinado · 

O que é para si ser Premium? Responda-nos e habilite-se a ganhar 500€ em compras AEG!



AEG
perfekt in form und funktion

AEG by Maria Barros

PARTNERS.COMUNICADO.NET 

Gosto · Comentar · Partilhar ·  44  2

Advert #17:

 **Receitas de Cozinha** Patrocinado · 

Proteja a sua saúde e a da sua família. Aproveite a Oferta do 12º mês. Simule já sem compromisso!



AXA redefinimos standards
SEGURO AXA
SAÚDE FAMÍLIA
OFERECEMOS-LHE A
12.ª MENSALIDADE

AXA - Seguro de Saúde

Para uma vida realmente saudável é fundamental saber que aquilo que faz parte de si está seguro. Escolha o pack de coberturas que mais se adequa às suas necessidades.

WWW.AXA.PT/CAMPANHA_SAUDE 

Gosto · Comentar · Partilhar ·  37  2

Advert #18:



**kit
FAT
Redux**

Perca Peso para o Verão
Melhor método de emagrecimento dos
EUA chega ao Brasil. Emagreça para o
Verão. Compre Já!

Advert #19:



Mangueira por 6xR\$11,65
clickmart.com.br
Mangueira de Jardim de 15 metros com
Carretel+esguicho de 4 jatos. Melhor
preço do Brasil!

ANNEX 2 – Adverts for Primary Data collection

Advert #20:



**RECEITAS DE DOCES
E SOBREMESAS LIGHT**

Aproveite esta oferta e faça
download de forma gratuita!


*Ebook
Gratuito*

Advert #21:



Advert #22:

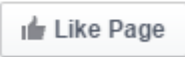
Suggested Page

 **Kiss and Tell**
Sponsored

Luxo, pessoas, marcas, experiências. Kiss and Tell.

there's a new blog in
TOWN

Kiss and Tell
Website
3,838 people like this.

 Like Page

Advert #23:

Suggested Page




Kiss and Tell
Sponsored

O blog sobre beleza, lifestyle e tendências, escrito por Rita Ibérico Nogueira.



Kiss and Tell
Website
3,838 people like this.

 Like Page

ANNEX 3 – Average appeal score, where 1 means "Very Soft-Sell" and 6 means "Very Hard-Sell"

| | Mean | Std. Deviation |
|------------|------|----------------|
| Advert #3 | 4,34 | 1,493 |
| Advert #19 | 4,20 | 1,471 |
| Advert #20 | 4,16 | 1,507 |
| Advert #6 | 4,13 | 1,227 |
| Advert #16 | 4,04 | 1,461 |
| Advert #5 | 4,02 | 1,310 |
| Advert #14 | 4,00 | 1,462 |
| Advert #10 | 3,98 | 1,774 |
| Advert #4 | 3,96 | 1,318 |
| Advert #20 | 3,91 | 1,018 |
| Advert #23 | 3,64 | 1,475 |
| Advert #12 | 3,53 | 1,401 |
| Advert #15 | 3,51 | 1,456 |
| Advert #13 | 3,49 | 1,502 |

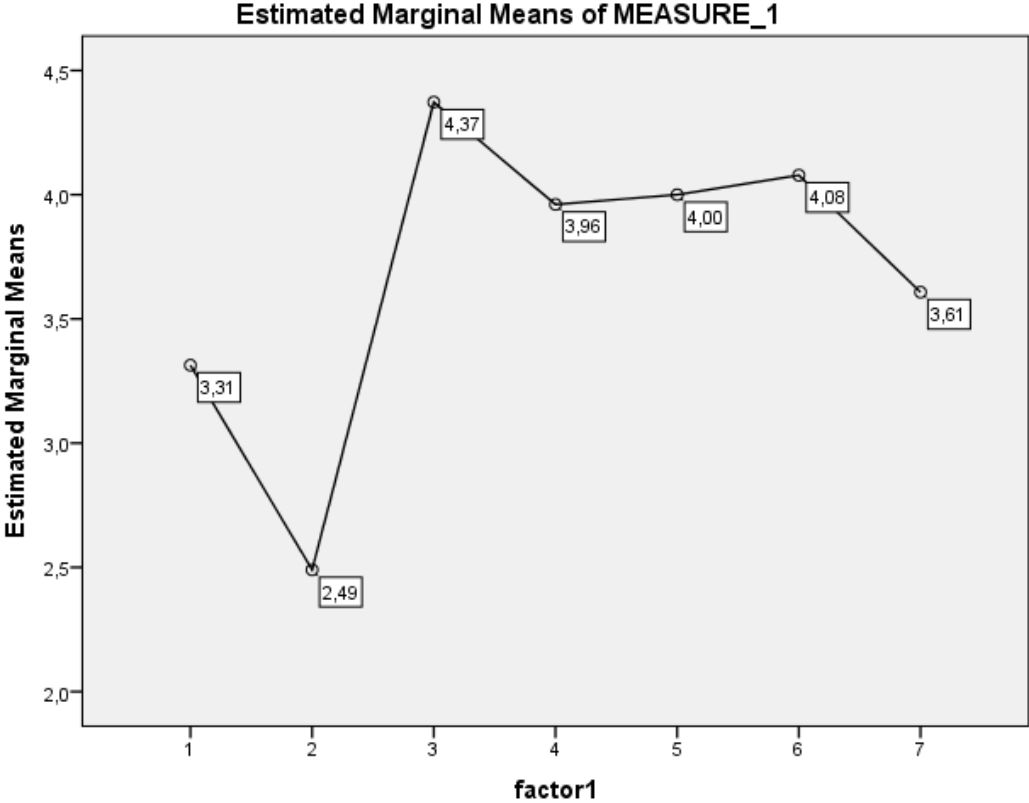
| | | |
|------------|------|-------|
| Advert #17 | 3,33 | 1,595 |
| Advert #8 | 3,31 | 1,873 |
| Advert #1 | 3,26 | 1,437 |
| Advert #18 | 3,11 | 1,434 |
| Advert #11 | 3,04 | 1,471 |
| Advert #21 | 2,71 | 1,137 |
| Advert #22 | 2,64 | 1,267 |
| Advert #9 | 2,63 | 1,468 |
| Advert #2 | 2,57 | 1,298 |

ANNEX 4 – Average need aroused score where 1 means "Very hedonic" and 6 means "Very utilitarian"

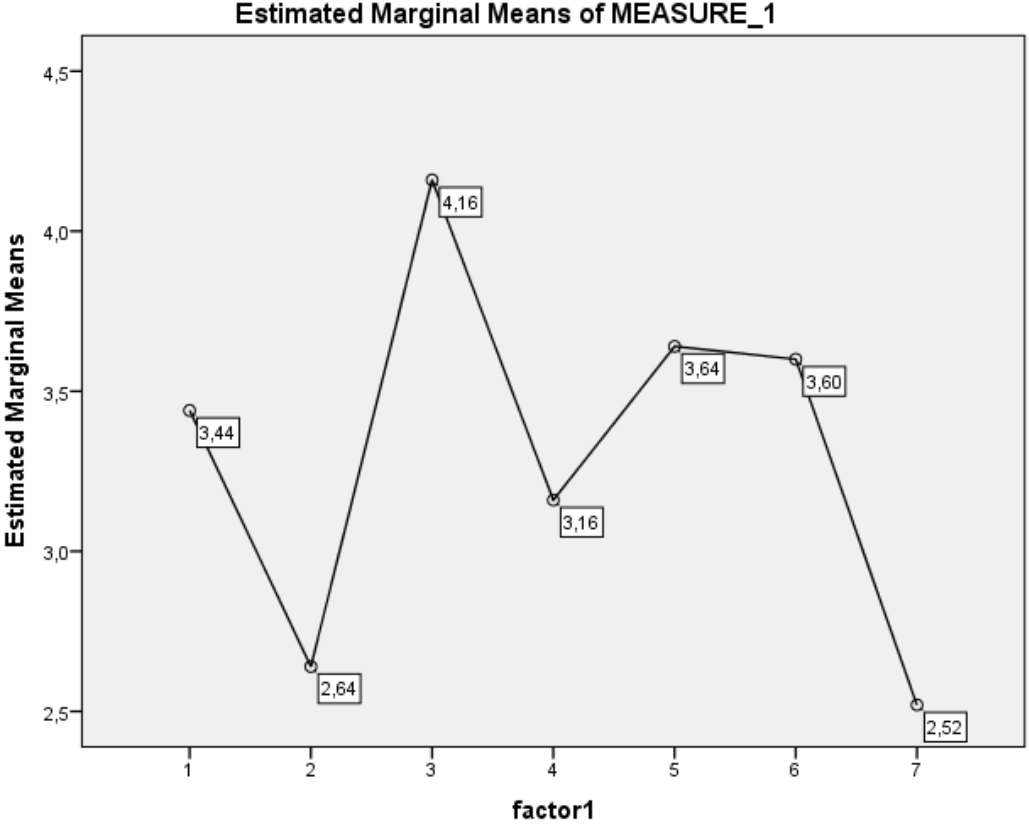
| | Mean | Std. Deviation |
|------------|------|----------------|
| Advert #2 | 4,71 | 1,502 |
| Advert #6 | 4,70 | 1,267 |
| Advert #8 | 4,47 | 1,325 |
| Advert #5 | 4,26 | 1,390 |
| Advert #12 | 4,18 | 1,481 |
| Advert #18 | 4,04 | 1,566 |
| Advert #14 | 4,02 | 1,359 |
| Advert #3 | 4,00 | 1,460 |
| Advert #21 | 3,98 | 1,390 |
| Advert #15 | 3,76 | 1,507 |
| Advert #16 | 3,53 | 1,231 |
| Advert #1 | 3,42 | 1,738 |
| Advert #20 | 3,27 | 1,604 |
| Advert #17 | 3,22 | 1,388 |
| Advert #19 | 3,09 | 1,282 |
| Advert #9 | 2,78 | 1,608 |
| Advert #11 | 2,76 | 1,495 |
| Advert #4 | 2,51 | 1,309 |
| Advert #20 | 2,49 | 1,545 |
| Advert #23 | 1,97 | 0,984 |
| Advert #22 | 1,95 | 1,169 |
| Advert #13 | 1,96 | 1,079 |
| Advert #10 | 1,82 | 1,131 |

ANNEX 5 – Profile plots with mean values of the hardness of each ad, per group

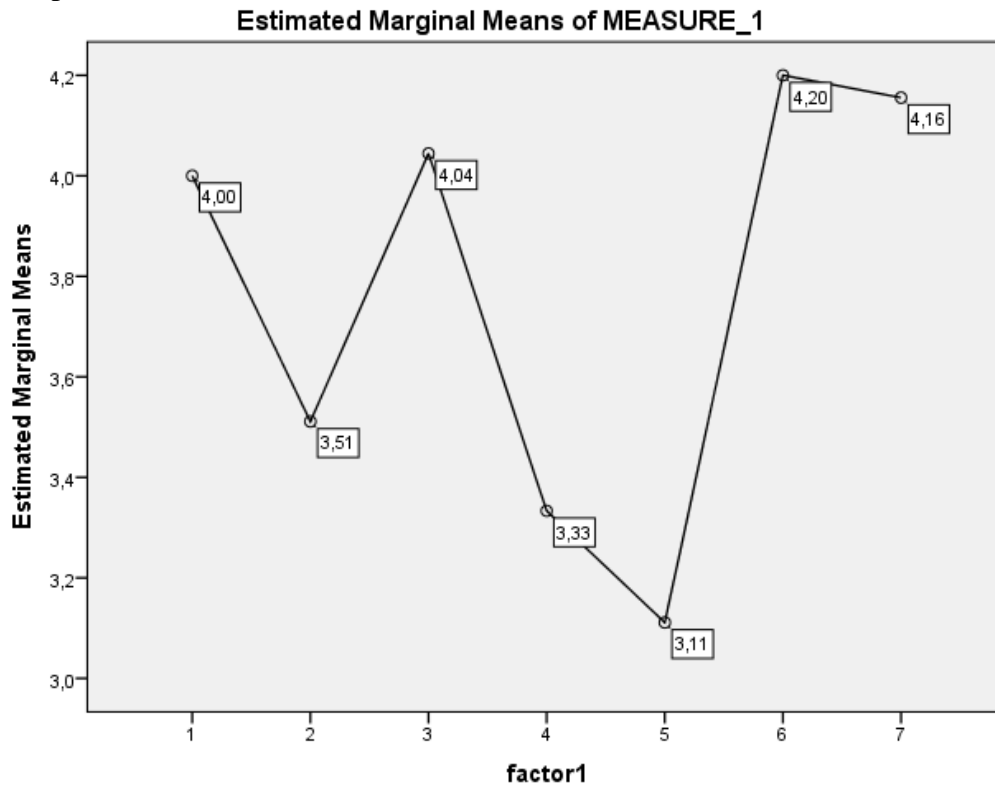
Group 1:



Group 2:

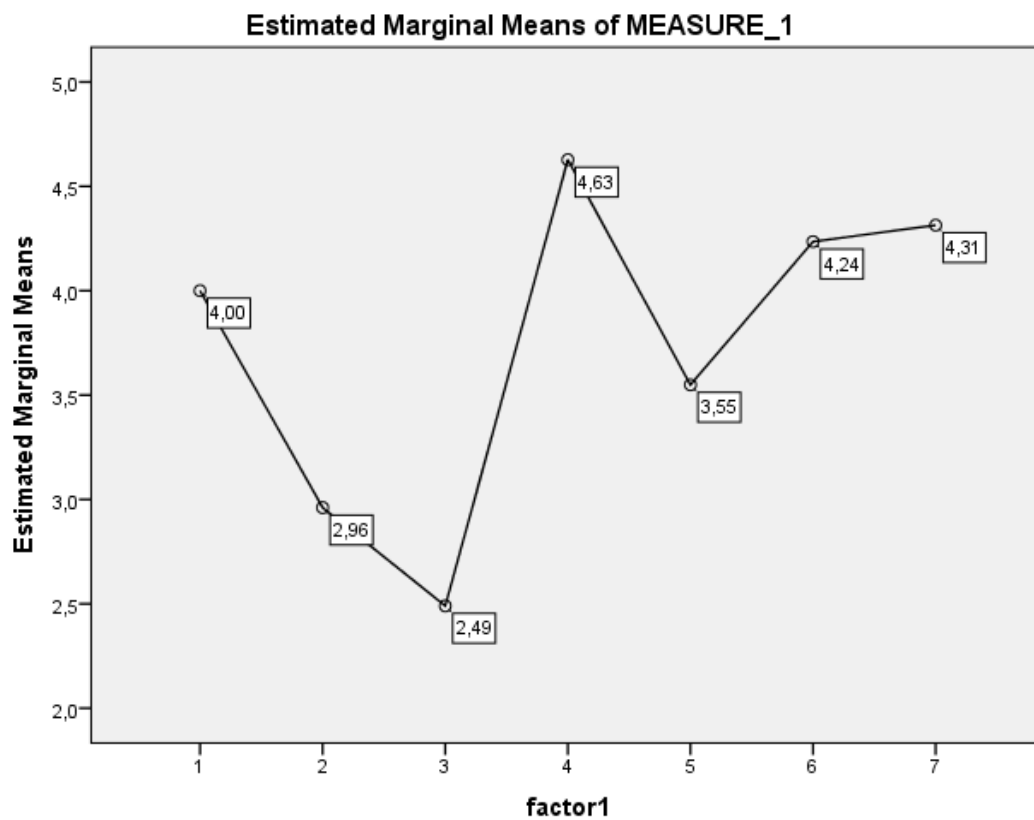


Group 3:

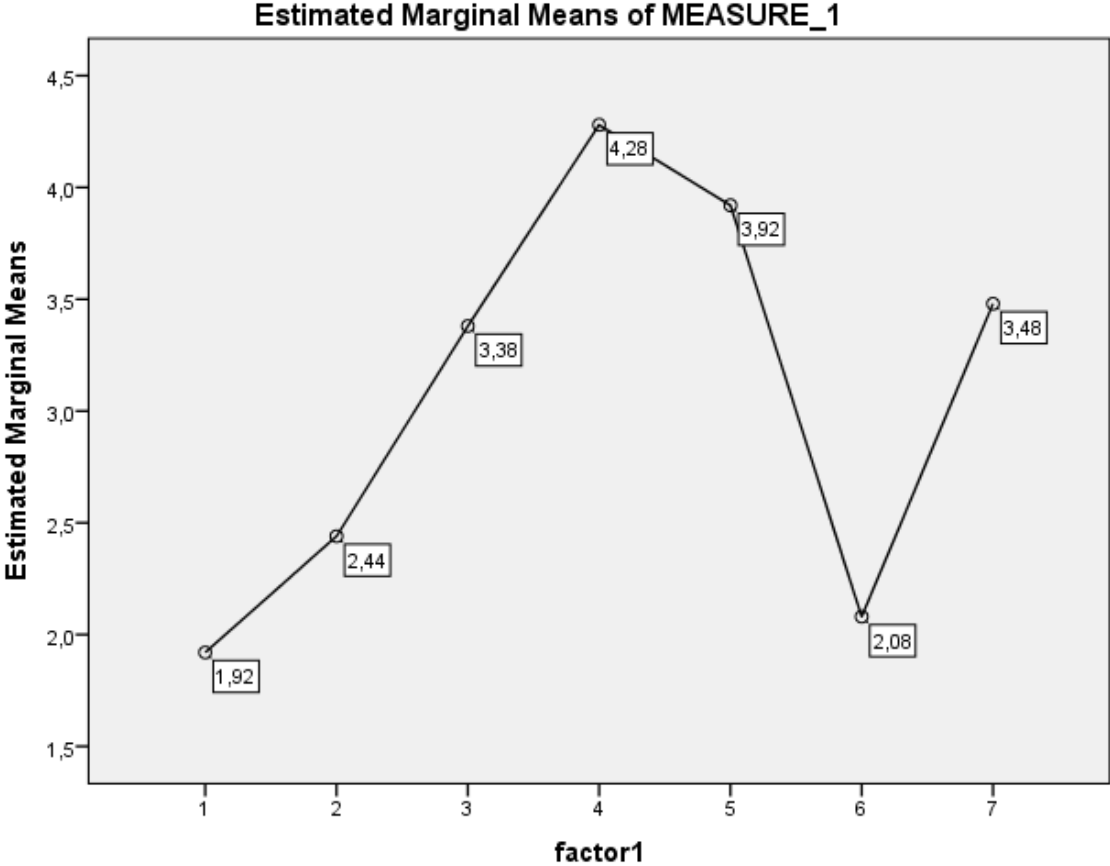


ANNEX 6 – Profile plots with mean values of the utility of each ad, per group

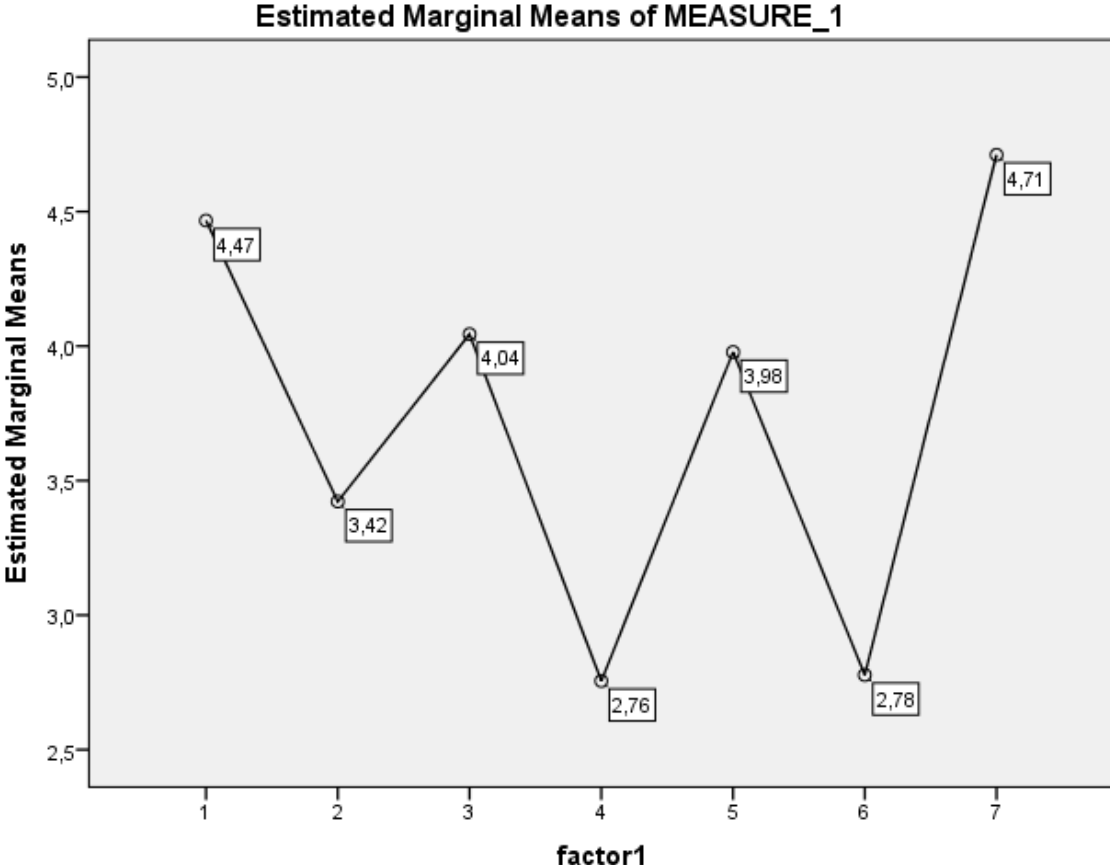
Group 1:



Group 2:



Group 3:



ANNEX 7 – Description of the variables manipulated in the secondary research analysis

| Variables description | | |
|------------------------------|-----------------------------------|-------------|
| Hardness | [Min (2,49) ; Max (4,37)] | Independent |
| Utility | [Min (1,92) ; Max (4,71)] | Independent |
| CTR | [Min (0,000860) ; Max (0,034120)] | Dependent |

ANNEX 8 – Description of the variables manipulated in the primary research analysis

| Variables description | | |
|------------------------------|-----------------------------------|-------------|
| Hardness | [Min (2,49) ; Max (4,37)] | Independent |
| Utility | [Min (1,92) ; Max (4,71)] | Independent |
| CTR | [Min (0,000860) ; Max (0,034120)] | Dependent |
| CR | [Min (0,000000) ; Max(0,007614)] | Dependent |
| Like Rate | [Min (0,12716) ; Max(0,028404)] | Dependent |