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Call-to-Actions within Search Engine Advertising

An Empirical Study on the Impact on Text Ad Effectiveness

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Abstract

This research had the purpose to study the effect of call to action use on text ad effectiveness within search engine advertising. The aim was to get an insight in the effect of an advertisement containing a call to action on the ad's CTR and conversion rate. Therefore, the following research question has been formulated; "What is the effect of call to actions on text advertisement effectiveness within SEA?"

A brief review of existing literature learns what Search Engine Advertising is and that it's mechanism works on two main subjects. The submitted maximum price per click and the submitted keywords by the advertiser. Together these determine if the ads are displayed when a user conducts a search query. Furthermore the literature explains what the purpose of advertising is based on the AIDA model. With regard to this model call to actions are explained as imperative statements within text advertising which have the purpose to draw the customer into clicking on the displayed ad's and buy the promoted products. Based upon this one could argue that call to actions have an positive effect on the effectiveness an ad has. In line with the call to action purpose, advertisement effectiveness measure within SEA has been determined by the ad's click-through-rate (CTR) and conversion rate.

Besides, a deeper look into keywords has been given. Based on shopping stages theory the argument is that keywords containing more terms have an positive effect on the ad's effectiveness and the relationship between call to actions and ad effectiveness. This because users in early shopping stages conduct broad information seeking searches and users in latter shopping stages are seeking more specific products, thus having specific search queries.

These assumptions are tested and the results are analyzed. Findings with regard to call to actions seem to point in the direction of the assumptions but unfortunately are not significant enough to support this idea. Assumptions with regard to keyword terms are not supported as well, but provide interesting results since the opposite direction of the relationship is showed in contrast to the assumption. Nonetheless, this result is also not significant enough to support and further research concerning this subject is recommended.

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1. Introduction

This chapter contains the thesis' subject introduction and creates a context for the problem statement by providing relevant background information. The problem statement describes the necessity of this research and gives the reader a clearer view into the problem. This is also the foundation of the thesis and it's research question. Finally this chapter gives a description of the practical and academic relevance this thesis has and its outline.

1.1 Background

During the revolution of the World Wide Web there has been a fundamental change in the way users search for- and gather information they seek. This resulted in a shift in the consumers' search and purchase patterns (Ghose and Yang, 2009). Nowadays search engines are being used by consumers as a tool of information gathering (Jerath, Ma and Park, 2014). Popular examples are Google, Bing and Yahoo. Since this movement in consumers' purchase orientation towards search engines, companies should have an Search Engine Marketing (SEM) strategy in their marketing mix. Typically, there are two ways a company can market itself or its products by using a search engine. According to Jerath, Ma and Park (2014): "The result of an user entering a search query in a search engine is a list of, to the search query relevant, webpages called "organic" results and a list called "sponsored" results." These sponsored results are advertisements. This type of advertising is called Search Engine Advertising (SEA).

Search engine advertising – also called keyword advertising, sponsored search or paid search – is the most popular online advertising channel as of today (Nabout et al., 2014). The concept of SEA is quite simple; advertisement placing next to organic (non-sponsored) search engine results where the advertiser pays a fee per click on the ads (Yang and Ghose, 2010). This 'cost-per-click' pricing system lowers the barrier for smaller companies to compete in the market as well, because of the lower costs (Guillory, 2007). The result is an interesting online marketing possibility for almost every company, not just the wealthy ones.

1.2 Problem statement

Since SEA provides an easy way for advertisers to market their company, website or products online it is arguable to say that any company is able to use it. This idea is also being reflected by the internet advertising market. Where the total market worth of SEA was more than \$37 billion in 2011 and is being forecasted to surpass \$57 billion for 2014 (Marketingcharts 2012), the paid search segment within online advertising is the largest. With such a big market with so many users and a lot of potential, the question arises; how to ‘search engine advertise’ effectively?

SEA is based on text advertisements which, as stated before, form a list of sponsored search results relevant to a search query. Because of editorial rules the search engines have, with regard to text ads, the possibilities to differentiate from the competition are limited. Basically, the only way to distinguish between advertisements is by the content the text of an ad has. This could, for example, be headlines which are a question, providing brand names in the text or the use of imperatives or ‘call-into-actions’ as part of the text. Think of statements as “Order today!” or “Buy now!”. This last example is a much used practice to trigger users and gain customers by paid search and therefore is interesting to take a closer look at.

The main purpose of SEA is for advertisers to trigger users to click on their ad and generate traffic and customers to their website. More clicks and conversions will make the ad more lucrative and show better numbers. “Click-through-rates” (CTR) and conversion rates are being used to analyze the result of SEA ads (Jerath, Ma and Park, 2014). So the use of call to actions is quite logical. But, into which extent does such an imperative have an effect on the user? What is that effect? Does it make the SEA advertisement of the advertiser more effective? And how can this effectiveness be measured?

This study will investigate the influence the use of call to actions have on text advertisement effectiveness within SEA. A fundamental theoretical framework for this research will be constructed by the study and use of existing theories with regard to the subject. Combined with empirical data conducted from a field experiment an analysis of both the theoretical framework as the data will have the purpose to give an answer on questions such as stated above. These questions’ answers aim to provide added value to existing academic theories as to companies and advertisers using SEA as a marketing tool. Giving this study usefulness that is both academic as practical.

1.3 Research questions

As stated above in the problem statement this research aims to provide a clearer insight into the effect the use of call to actions have within SEA. Throughout this study a logical structure of topics has been constructed in order to provide answers which will form the fundament for solving the research's central research question:

“What is the effect of call-to-actions on text advertisement effectiveness within SEA?”

In order to give an outlined and grounded answer to this research question and draw a reliable conclusion the following topics will be reviewed within this study, based on brief review of existing literature:

1. What is Search Engine Advertising and how does it work?
2. What are call-to-actions and what is their purpose within text advertising?
3. How can SEA text ad effectiveness be measured?

1.4 Academic relevance

Since the emergence of Search Engine Advertising there has been a stream of SEA theory work. But, because of the difficulty researches have to access ‘real world’ data, there are relatively little empirical studies about the online advertising market (Agarwal et al. 2011; Ghose and Yang, 2009). The research conducted has mainly been focused on display advertising instead of search (Bucklin and Sismeiro, 2009). Existing studies have examined, for example, the difference between click-through rates between organic and paid search results (Yang and Ghose, 2008) or spillover between both search results with regard to branded and generic keywords (Rutz and Bucklin, 2008). Jerath, Ma and Park (2014) find that keyword popularity has an important role in the way consumers’ should be targeted for paid search advertising. Jansen (2007) and Jansen and Resnick (2006) focus on the text ad with regard to their components. Indicating that the title and description lines are the most important parts for online text ads.

With this research the aim is to contribute to existing literature and theory by combining extant theory with empirical data. Both empirical studies, as stated above, and an academic focus on ad content and design are scarce within this field and additional research is needed (Rutz and Trusov, 2011). Combining these components and attaching them to a determination and understanding of online ad effectiveness will provide interesting and value added results

which differ from previous studies. With these results this study develops better insight and understanding of the use of call to actions within SEA ads and the effect they have on the ad effectiveness. These insights and results will contribute to academic theory with regard to online search advertising.

1.5 Practical relevance

The fact that the SEA concept has made online advertising much more accessible for nearly any company and the fact that the online search advertising market has been growing excessively the past years create a need for better SEA strategies. With more and more competition it is necessary for companies and marketers to differentiate their advertisements from competition to keep a competitive advantage and keep their campaigns effective.

The findings of this study will have practical relevance for the relevant market because empirical evidence will be provided on the effect of specific text ad content on ad effectiveness. With this knowledge advise with regard to the use of call to actions in online text ads can be given to the company side. Business owners and/or advertisers will be able to increase the effectiveness of their campaigns and gain more customers with lower costs.

On the other hand, this research also has practical relevance with regard to the ‘search engine side’ of the market. With the results and understandings followed by this research search engines will gain knowledge too. This knowledge is useful in consulting their customers with regard to their SEA campaigns. The level of service search engine companies have will develop positively.

1.6 Thesis outline

This thesis is built up by five main chapters. First of beginning with an general introduction into the subject, to be followed by an in depth look into the literature, theory and data and as usual closing with an conclusion with regard to the research purpose.

This first chapter has served as an introduction into the research subject. Giving the reader relevant background information and stating the necessity this research has within the problem area. The problem statement is the basis for the formulated research questions this study will use to give an answer to the main research question. To support the problem

statement, the first chapter continued with the argumentation for the academic and practical relevance this research will have.

Within the second chapter a review of the literature and a theoretical framework will be constructed. Providing and presenting relevant studies with regard to the research subject. This framework will be the fundament for the research question to be answered. Starting off with an explanation of SEA and how it works. Followed by a closer look into call to actions within text advertising, and the characteristics of keywords and interdependence between these variables. On the basis of these interdependent relationships hypotheses will be formulated which will be visually presented in a conceptual model.

The third chapter will contain a description of the research method used for this study. An explanation of the research purpose, research approach and research strategy will be followed by methodology with regard to the data collection, determination of ad effectiveness measurement and data analysis and hypothesis testing.

Chapter four will present the gathered data. An explanation of the experiment setup and data collection will be given. The presentation of the experiment outcomes will follow together with a description and explanation of the statistical research method that has been used. The fourth chapter will end with findings with regard to the tested hypotheses.

The fifth and closing chapter will provide answers on the research question this study focuses on. Together with the answers provided by the literature review this will be the fundament for the conclusion that will be given with regard to this research. This chapter will end by providing practical implications and suggestions which company owners, managers and marketers can use, the thesis' limitations and future research recommendations.

2. Literature review & Theoretical framework

Within the following chapter a review of the literature and a theoretical framework will be constructed. Providing and presenting relevant studies with regard to the research subject. This framework will be the fundament for the research question to be answered. Starting off with an explanation of SEA and how it works. Followed by a closer look into call to actions within text advertising, and the characteristics of keywords and interdependence between these variables. On the basis of these interdependent relationships hypotheses will be formulated which will be visually presented in a conceptual model.

2.1 Search Engine Marketing

Since the introduction of the Internet, it is safe to say that there has been a revolutionary change in the way users search for and gather information. Not only for general information gathering, but the World Wide Web has also become a channel which an enormous amount of people on a daily basis use to buy and sell products. As a result companies have noticed that a larger number of online customers will increase sales. Generating more online customers by attracting them to the company website (Ghose and Yang, 2009). According to Bucklin and Sisimeiro (2009) and Yao and Mela (2011) this awareness resulted in search engine advertising becoming an essential part within companies' marketing mix.

SEA and online marketing in general gained a lot of interest and popularity because of some fundamental reasons. First of all, compared to traditional marketing channels, there is a difference in the marketing model with regard to message logistics. Traditional media use a one-to-many marketing model which enables marketers to advertise to a "mass". (Hoffman and Novak, 2000). The online environment has made it possible for customers to interact with firms which results in a shift into a more "targeted" marketing model; one-to-one marketing (Ghose and Yang, 2009). A possibility for marketers to engage consumers on a more personal and individually relevant level and move further towards customer satisfaction (Pitta and Fowler, 2005). Thus, advertise more effectively.

In line with the reason stated above two more reasons lie behind the internet marketing success. Compared with traditional marketing channels, using internet for advertisement is the least expensive way for companies to market their products or services (Yan and Po, 2006). With regard to advertisement costs online marketing has a great advantage on traditional media and has become relatively accessible. Next to the fact that online advertisement is accessible, different studies state that the targeting ability internet marketing comes with is a

major advantage (Hoffman and Novak, 2000). Not only the fact that the content of online ads can easily be made personal to customers also the possibilities of location, language, time and demographical targeting is of advantage towards traditional advertising.

Last but not least, online advertisement comes with a much greater measurability than traditional media. All results, numbers, clicks and conversions are being tracked and stored in a database which provides personalization possibilities (Jobber, 2001) but also business wise advantage. Since the costs and revenues of online advertising can be measured a better justification of marketing expenses can be presented in companies and businesses internally.

Search Engine Advertising

The fact that search engines are able to provide a great amount of infinite information to users linked to their search queries also makes them an ideal platform to sell advertising on the same user-generated search query basis. Ghose and Yang (2009) define this concept of search engine advertising as a phenomenon "...where advertisers pay a fee to Internet search engines to be displayed alongside organic (non-sponsored) Web search results." These sponsored search results are advertisements which are determined by the users' own search queries. This concept of advertising makes SEA a much less intrusive one than online display (banner) advertising or ads in pop-up windows. Search engines are able to sell a form of advertising that is not annoying to the customer (Ghose and Yang, 2008). Dhar and Ghose (2009) describe that the specific chosen "keywords" which trigger the ads and to which they are displayed are based on online user-generated content that often highlights product features the consumers value the most. This obviously is in line with the previously described fact that, online marketing has a more targeted instead of mass marketing approach. Advertisers are able to provide timely, relevant and personal messages to consumers at a time that they are actively searching for information and products (Godin, 1999; Turnbull and Bright, 2008). These aspects resulted in, as previously mentioned, search engine advertising – also called keyword advertising, sponsored search or paid search – becoming the most popular online advertising channel as of today (Nabout, Lilienthal and Skiera, 2014). Making it the largest online marketing segment with a total market worth of more than \$37 billion in 2011 and being forecasted to surpass \$57 billion for 2014 (Marketingcharts 2012).

SEA in practice

From a practical point of view, how does SEA work? A user enters a search query, for example “watches”, into a search engine and is provided with two types of listed results. The user’s screen could look like this:

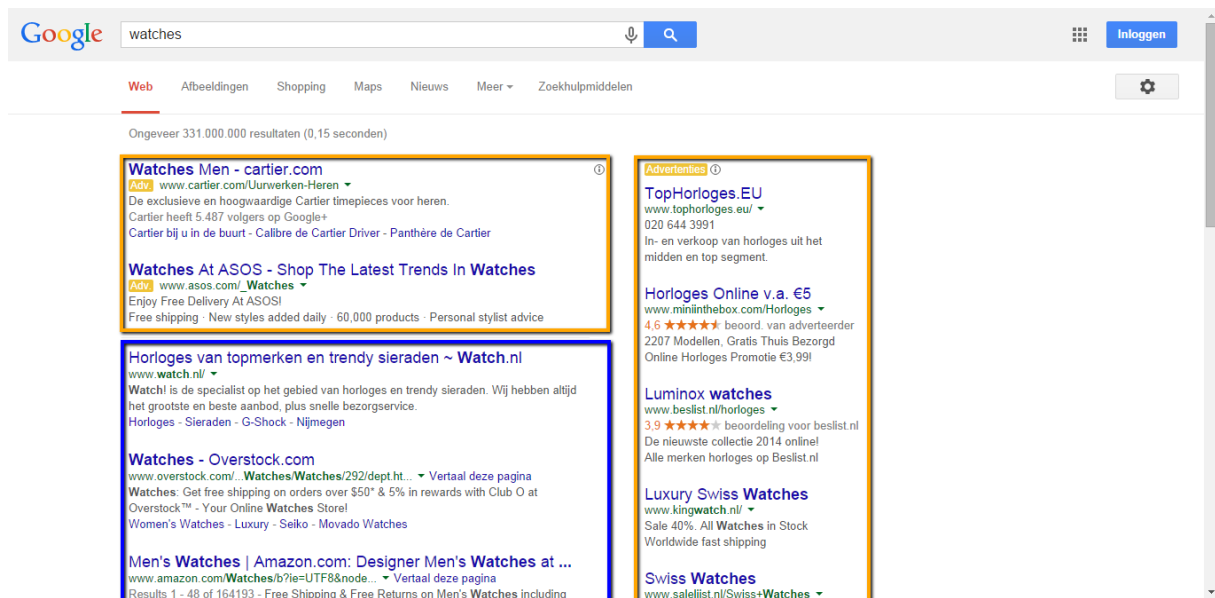


Figure 1: Search engine results page (www.google.nl)

The lower and left side of the results page displays the organic, non-sponsored, search results. In figure 1 these are marked blue. The fact that these are displayed and ranked in this particular order is because of their relevance with regard to the search query. This relevance is determined by the search engine’s search algorithm. In figure 1 marked by orange, on top and on the right side of the page, the user is provided with sponsored search results. These are search engine advertisements. For companies the display of organic results is free, while sponsored search results are not. Advertisers have to pay a fee every time a click on their ad is measured. This payment mechanism is called cost per click (CPC) (Jerath et al, 2014; Ghose and Yang, 2009).

In SEA companies are able to submit their specific product or service information by providing search engines with relevant keyword listings. A keyword is not necessarily a single word. It could be more than one word or even a phrase. The CPC bid values, which are specified for each individual ad, and the relevance the submitted keywords have with the search query determine the competitiveness of the position the ad will have on the sponsored results list when a user does a single search. “Because listings appear only when a user

generates a keyword query, an advertiser can reach a more targeted audience on a relatively lower budget through search engine advertising.” (Ghose and Yang, 2009: 1606).

So the SEA mechanism of ad displaying is primarily based on two things; the submitted maximum cost per click price by the advertiser and the relevance the submitted keywords have to the users’ search queries (Feng et al., 2007). Since there is a continuous flow of a large amount of search queries each day, hour or even minute, how are the SEA results, ranks and click prices determined? This happens on an auctioning basis. The actual fee that has to be paid by the advertiser is determined by a second price auction mechanism. This means that when a customer clicks on a sponsored ad in position x, the advertisers fee is the minimum bid that is needed to be placed in this position (Lahaie and Pennock, 2007; Agarwal et al., 2011). In practice this means that advertisers pay 1 cent of the used currency more than the second best bid for the same position with the same keyword.

2.2 Google AdWords

According to Duffy (2004) and Moran and Hunt (2006) Google AdWords was at that time the leader in search engine advertising. Nabout et al. (2014) state that Google and Bing are the two market leaders in sponsored search now. It is safe to say that Google is considered the most used search engine in general. This study’s empirical data will be gathered from Google AdWords because of the large amount of traffic that it processes.

In 2000 Google introduced Google AdWords. Google AdWords is Google’s SEA platform in which advertisers can set up, manage and monitor their sponsored ad based marketing campaigns. As described above, according to Goldfarb and Tucker (2008) this platform provided a sponsored search possibility on Google search pages where paid search ads are displayed next to organic, non-sponsored, search results. The first two years, since AdWords launched, the platform was using a pricing method called “cost-per-mille” (CPM). This method is primarily used in traditional marketing channels where advertisement is sold per impression. In this case per 1000 impressions. Since 2002 Google AdWords switched from CPM to the CPC pricing method and is using it still today.

In essence, Google AdWords as a search engine advertising platform, uses the system of a continuous flow of auctions where companies bid on specific keywords which compete for a specific sponsored ad position within the results. If and when a user clicks on one of these advertisements that are displayed in response to an users relevant search query, Google earns revenue (Battelle, 2005). Together with the advertisers maximum bid, the previous registered

CTR of an ad and the relevance of the landing page to the keyword attached to the ad determine the order in which the ad results are listed and their ‘quality score’ (Google AdWords Learning 2014). Feng et al. (2005) describe this primary ad displaying system which Google AdWords uses as based upon a correlation between two elements; the advertisers specified maximum keyword bid and the relevance the ads have to the users’ search queries.

Google AdWords editorial policy

Google’s text ads always have the same structure with three main components. A headline, a display URL and two description lines (see figure 2). The headline, also called the title, acts like an link to the promoted website and is most likely to be noticed. The display URL, usually green, shows the address of the website. Giving the user an idea where they’ll go by clicking on the ad. The description lines can be used by the advertiser to describe the promotional message (Google AdWords Learning 2014, Haans et al., 2013). Every text ad component also has a maximum limit of characters of which the particular part of the ad should exist (see table 1).

Advertise with Google
 adwords.google.com
 Want fast results?
 Create your ad campaign today!

Headline
Display URL
Description

	Max length
Headline	25 characters
Display URL	35 characters
Description line 1	35 characters
Description line 2	35 characters

Figure 2: Basic Google text ad

Table 1: Maximum length of text ad components

Together with the maximum length of the text ad, with regard to the number of characters used, and the editorial requirements the advertisements should meet Google is able to ensure and maintain a high ad quality. A high ad quality results in a better user experience. These regulations also provide a fair competition on the platform and prevent inappropriate or unclear ads. Google requires that all advertisements meet high professional and editorial standards. Promotions are only allowed if clear, professional in appearance and that lead users to content that is relevant, useful an easy to interact with (Google AdWords Policy 2014).

Following are examples of relevant editorial rules within Google's AdWords Policy (2014):

- Clear promotion.
 - Promotions must be comprehensible and make sense.
Not allowed examples are gibberish ad text, overly generic or vague promotions.
 - Promotions must accurately reflect where the user is being directed.
Not allowed, for example, is using the display URL with "www.google.com" and leading to a landing page with the URL "www.youtube.com".

- Clear relevance.
 - Promotions must be relevant to the landing page.

- Unsupported superlative or competitive claims.
 - Promotions are not allowed to contain superlatives and comparatives "best," "#1," "better than," "faster than," or any other equivalent claims where that claim is not supported by third-party verification on the landing page.

- Usefulness.
 - Promoted content is not allowed to be unnecessarily difficult or frustrating to navigate.
Not allowed, for example, are website with pop-ups or interstitial ads that interfere with the user's ability to see the content requested or hosted ads that are not clearly distinguishable from other website content.

- Style requirements.
 - Promotions must use the features of the ad components for their intended purpose.
Not allowed, for example, are ads that don't contain promotional content, text ads missing a line of text, text ads that have the third line of text running into the display URL, using the URL field as an additional line of text.
 - Promotions must be consistent with the clear and informational design of the Google search results.

Not allowed, for example, are ads which contain an exclamation mark in the headline, ads that use bullet points or numbered lists or ads that have a call to action which states "click here".

- Spelling and grammar.

- Promotions must use commonly accepted spelling and grammar.

Not allowed, for example, is: "Flowers here buy" or "Buy flwres here" instead of "Buy flowers here".

- Punctuation, symbols, capitalization, spacing, or repetition must be used correctly or for their intended purpose.

*Not allowed, for example is the Excessive or gimmicky use of numbers, letters, symbols, punctuation, repetition, or spacing such as the following: flowers, fllllowers, fl@wers, Flowers!!!, f*l*w*e*r*s, FLOWERS, FlOwErS, F.L.O.W.E.R.S, flowers-flowers-flowers!, fl o w e r s, buyflowershere.*

When setting up a SEA campaign and designing the ads and their content, the concept and mechanism of SEA, thus Google AdWords, and Google's editorial policy give an regulated framework and environment in which Google advertisers can compete and promote their products or services. Since this experiment will use AdWords to gather its empirical data these editorial rules and the described SEA concept also apply to this research. A clear understanding of the empirical landscape is needed.

2.3 Theory on text advertisement & call to actions

The previous paragraph presented the SEA concept and mechanism. Google AdWords will be the platform from which the empirical data will be collected. A clear and in depth view into this research's landscape is given. The next step is to create an understanding about the type of advertisement that will be used to conclude this study. The theories used have to create a framework which can be applied to search engine advertisements. This paragraph will focus on advertising in general and combine a classic advertising model with newer theories with regard to advertising online.

Advertising purpose according to AIDA model

When looking at advertising in general a couple of fundamental steps have to be taken to promote the advertisers message to a potential customer. Probably the first formal advertising model, called AIDA (Strong, 1925), describes these steps. AIDA stands for Attention – Interest – Desire – Action. According to Lavidge and Steiner (1961) the AIDA advertising model is a “hierarchy of effects” type of model. Suggesting that there are fundamental steps that a customer takes from being exposed to an advertisement until actual product purchase. By the AIDA model the advertiser is able to encourage the user to do so. Vakratsas and Ambler (1999) state that these hierarchy of effects type of marketing models have dominated the stream of literature since the AIDA model has been published.

The first AIDA step is attention. According to Strong (1925) this means that a promotion should attract the attention of a potential customer. Drawing attention is needed and necessary for an ad to be effective and persuade the customer from being exposed to one (Rossiter and Percy, 1987). In line with Strong (1925), Peter and Olsen (2005) also state that the first influence an advertisement should have is drawing attention from a user. With regard to SEA, drawing attention is a very important step because of the competition. Since the editorial policy, as described previously, getting noticed is difficult because of limited area to distinguish ads from competition.

The second and third step are interest and desire. Interest suggest that the purpose of a promotion secondly is to gain the customers interest by communicating the product's or service's positive aspects. For example a promise or offer (Strong, 1925). Desire means that the gained interest is processed in the consumer wanting the promoted item by convincing one the product's or service's value (Strong, 1925). Both interest and desire are being created because of a certain curiosity (Loewenstein, 1994; Menon and Soman, 2002). Advertisers

should not only aim to attract attention to their promotions, they should also create interest and desire by making users curious about the advertised product or service (Aaker et al., 1992; Menon and Soman, 2002). With regard to sponsored search advertising, “unlike a television commercial or print advertisement, most internet advertising is in a form that requires sufficient interest and motivation on the part of the consumers to interact with the advertisement and access appropriate information rather than be passive recipients of the message” (Menon and Soman, 2002:2). For having effective online text ads, the advertiser should take attracting attention and creating interest and desire in mind while setting up a marketing campaign. But, having attention and interest is not enough for making a potential consumer a customer.

This is where the last AIDA step comes in: Action. The purpose of this step is to call the user in to action; buying the promoted service or product. To do so, the consumer must have the ability to take action to purchase the product (Strong, 1925). The ad could, for example, inform the customer where to do so. Even though within SEA the actual purchase of a product is a couple of mouse clicks away and the users are not passive recipients of the promotion, there is still the necessity to call these potential customers into action. A call into action (here usually described as call to action) is not only needed for a promotion, it also could improve the advertisement’s effectiveness. So the threshold that has to be taken is relatively small, hence the user could be easily persuaded into taking actual action.

Call to action purpose within advertising

In line with the last AIDA step, Janal (2000) states in his book that in order to have an effective online advertisement there is a necessity of the use of a call to action statement in the ad. Since the final purpose of a promotion is to persuade the user into converting the promoted message into a purchase the use of a sentence in a imperative form is obvious. According to Motes et al (1992) such a sentence is a linguistic condition associated with high readership and will increase the effectiveness of a promotion. If this action a user is supposed to take is put in a SEA perspective, one should take into account that the actual action is a simple click on the displayed ad. So, as mentioned above, the threshold that has to be taken is relatively small, hence the user could be easily persuaded into taking actual action. From a more practical point of view, Janal (2000) uses the example of the use of “Order today!” within sponsored search text promotions. He states that the use of such an imperative is able to change the users behavior with the result of the user becoming a customer by ordering the product. With regard to this, the study of Hofacker and Murphy (1998) showed that the use of

call to actions within online banner advertisement have a positive effect on the effectiveness of the ads. This effect was superior to the effect the variants without the call to action had. In contrast to the online environment, the study of Rossiter (1981) found that the use of imperatives within classic advertising has a negative effect on advertisement effectiveness. Nonetheless, Turkle (1995) states that users in an online environment behave differently than users in the real world. Hoffacker and Murphy (1998) describe that moving through the online environment is relatively easy and the curiosity factor for advertisements with an call to action could drive the users who are hedonically using the web in order to see what is behind an advertisement. Besides, Hoffacker and Murphy (1998) argue that ads with an call to action are relatively ‘peripheral’ compared to more ‘central’ advertisements with regard to the Elaboration Likelihood Model (Petty and Cacioppo, 1986). The imperative form of an call to action “...may match the hedonic mode of most visitors to the site, inducting them to click without much cognitive effort being expended.” (Hoffacker and Murphy, 1998:710). Online customers don’t behave the same as a customer visiting a physical point of sale. Together with the fact that an advertisement has the purpose to call a customer into action, that there is a need of call to action statements in ads and the positive effect these imperatives have within the online banner advertising environment, call to actions could also affect the online consumers behavior and influence the effectiveness SEA ads have.

According to previously described theory it is safe to assume that the use of an call to action within search engine advertisements will improve the effectiveness of the ad in a positive manner. Therefore the following hypothesis has been formulated:

H1: Advertisements with a call to action are likely to have a positive effect on the ad’s effectiveness.

2.4 Shopping stage intentions in search query perspective

Let’s take an in depth look into the role of keywords within sponsored online search. As described previously the SEA mechanism of ad displaying is primarily based on two things; the submitted maximum cost per click price by the advertiser and the relevance the submitted keywords have to the users’ search queries (Feng et al., 2007). Since search engine advertising is intent-related advertising (Gopal et al., 2011; Jansen, 2011) the search queries consumers use represent their purchase intention. The result is that the characteristics of the keywords entered by users could affect the advertisements effectiveness. Therefore it is

interesting, but also necessary, to have a closer look into this phenomenon, with regard to this research.

Shopping goals theory

Based on construal-level theory (Trope and Liberman, 2003) and mind-set theory (Gollwitzer, 1990) the shopping goals theory (Lee and Ariely, 2006) is “ ...a two stage model that describes the increasing concreteness of consumers’ goals during the shopping process.” (Lee and Ariely, 2006:60). The first stage is described as a stage where a consumer is generally not certain about one’s purchase. One does not exactly know what, where and for how much to acquire a certain product or service. Within this first stage the consumer is orienting and creating shopping goals for one self. The result is that, within this stage, the consumer’s consideration set is not specified entirely and consumers are susceptible to influence that is contextual and external (Lee and Ariely, 2006). Moving to the second stage, when a consumer has developed it’s concrete shopping goals, the consumers purpose is to complete the shopping goals that have been set and they are likely to buy the desired product or service.

Keyword characteristics

In line with the shopping goals theory, the use of different keyword characteristics that consumers use can be attached to different shopping stages consumers pass. According to (Jansen et al., 2008) and (Jansen et al., 2011) users conduct information searches multiple times within their purchase process. Whereas, in early stages during the process, consumers are orienting and therefore are mainly collecting information to support the development of their purchase decisions (Bhattacharjee et al., 2006). As stated, during the initial steps, concrete shopping goals haven’t been developed yet (Bettman et al., 1998). Moving to the next purchasing steps, the consumers have developed a concrete purchase decision which changes their search behaviour. When concrete shopping goals have been set, consumers tend to search for specific products (Dhar and Ghose, 2010). With regard to keywords, given these findings keyword characteristics are expected to change moving through the shopping process. Broad, general and shorter (in terms of number of containing words) keywords are expected to be used when consumers are in early stages. More specific, describing and longer keywords are expected to be used when consumers have developed and set their shopping goals.

If the above is put into perspective of online advertising, the shopping goals model also supports the determination of product or service sales which are generated by a user

conducting a search query. As described within the first stage of the shopping goal theory, consumers haven't developed concrete purchase decisions yet, thus are orienting their selves by gathering knowledge to support developing their shopping goal. As a result, orienting users seem less likely to buy a product (Rutz and Bucklin, 2011). On the other hand, when the consumers have developed and constructed their purchase decisions, shopping goals are set. Now the consumers' purpose is to find a specific product or service and a point of sale where one can purchase it. These users are more likely to convert the advertised product (Ghose and Yang, 2010).

Keyword characteristics and ad effectiveness

With regard to SEA and its ad performance, keyword characteristics changing - because of different levels of purchase decision making - also has an effect on the ad's effectiveness. Users in early shopping stages use generic, short keywords to gather information (Hotchkiss, 2006). For example, "smartphone cover". The result of consumers orienting and gathering information by generic keywords is expected to be users not buying promoted products directly. According to (Rutz and Bucklin, 2011) generic keyword searches create a "spillover" effect having users in conducting more subsequent searches than specific keywords have. Thus, advertisements being less effective when short keywords are being used. In line, 70% of search queries start with generic keywords and are narrowed down more specifically during a couple of search interactions between the user and search engine (Hotchkiss, 2006).

Consumers with set purchase decisions use specific, long keywords to find a specific product and place to purchase it. For example, "iphone 5 hardcover black". By using specific keywords consumers are able to find and locate the exact product of their purchase decision more effectively (Dhar and Ghose, 2010; Rutz et al., 2011). This results in consumers, using specific keywords, to be expected to buy promoted products more directly. Thus, advertisements having a higher effectiveness. Keyword characteristics used by users within SEA are likely to reflect the shopping goal stage the users are in. Generic keywords, containing a small number of terms reflect an orientation stage where consumers are less likely to conduct a purchase. Specific keywords, containing a large number of terms, reflect a stage where shopping goals are set and consumers are more likely to buy.

As a result of the above findings, the following hypothesis has been formulated:

H2: Advertisements with keywords containing more terms will have an positive effect on the ad's effectiveness.

Combining H1 & H2 one could also assume that more keywords also have a moderating effect on the relationship between call to actions and ad effectiveness. Therefore, the following hypothesis has been formulated as well:

H3: Advertisements with keywords containing more terms will increase the effect of call to actions on ad effectiveness.

2.5 Conceptual model

To illustrate the main effects and interactions within the theoretical framework as presented above the following conceptual model is developed:

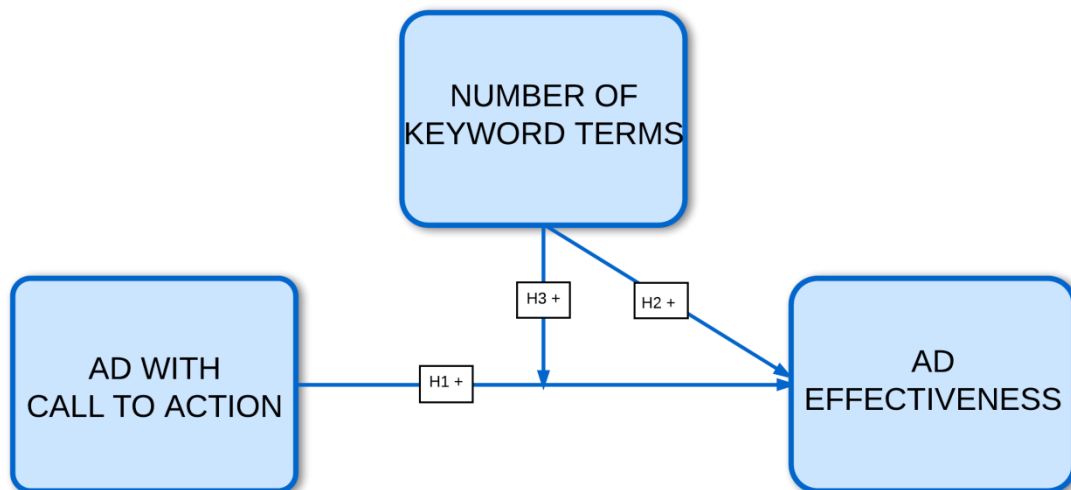


Figure 3: Conceptual model

3. Research Methodology

This chapter will contain a description of the research method used for this study. An explanation of the research purpose, research approach and research strategy will be followed by methodology with regard to the data collection, data analysis and hypothesis testing.

3.1 Research purpose

With regard to research methodology one should ask why and to what extent a research will be conducted. How will it be approached and executed and based on what information? To have a clearer understanding of this study these fundamental questions will be answered.

The main purpose of this research is to provide an in depth understanding of the effect call to action use within SEA ads has on the ad's effectiveness. To create this understanding cause-effect analysis will be conducted. Thus, an explanatory research purpose this study has. Besides an explanatory purpose, secondary research purposes can be recognized within the research method of this study. First of all, since extent literature and theories are used to explore the research problem and to answer formulated research questions, one could argue an exploratory research purpose is used. Secondly, the data that this research will provide will represent an actual 'real world' situation. With regard to this, one could also argue that this research is also descriptive to some extent. However, as mentioned above, the overall purpose of this study will be an explanatory one because of the cause-effect analysis of independent and dependent variables.

Hypothesis	Independent variable	Dependent variable
<i>H1: Advertisements with a call to action are likely to have a positive effect on the ad's effectiveness.</i>	Call to action within ad	Ad effectiveness
<i>H2: Advertisements with keywords containing more terms will have an positive effect on the ad's effectiveness.</i>	Number of keyword terms	Ad effectiveness
<i>H3: Advertisements with keywords containing more terms will increase the effect of call to actions on ad effectiveness.</i>	Call to action within ad by Number of keyword terms	Ad effectiveness

Table 2: Hypotheses and variables overview

3.2 Research approach

With regard to research approach two different categories can be mentioned. Inductive research approaches and deductive research approaches. Deductive approach is being used when a research has been set up based on theory, research questions and hypotheses which will be tested. Inductive approach is being used when a study provides a new theory that is based on analysis of gathered data. Within this study the deductive approach will be conducted. Based on a theoretical framework, hypotheses have been formulated. These hypotheses will be tested based on empirical data to do an research on the effect call to action use has on ad performance. However, one could also argue that an inductive approach is recognizable as well. Hopefully the research will have concluding results that will be of value to existing theory on SEA and provide new insights within this field.

3.3 Research strategy

To test the formulated hypotheses and solve the problem statement this study's strategy will be an experimental one. The experiment design of this study will result in a 'field experiment' where data is gathered from an experiment set up in real market conditions. Since the experiment will run during a pre-determined timeframe the field-experiment will be of cross-sectional nature.

To analyze the effect of call to actions in SEA text advertisement on the ad's effectiveness, within this study real market data will be collected. To do so, an experiment will be set up within an empirical setting. This setting will be a Google AdWords advertising campaign. The choice for Google AdWords is because of practical reasoning; access to conduct an field experiment with text advertisements in a current campaign of an actual company. As mentioned before, Nabout et al. (2014) state that Google and Bing are the two market leaders in sponsored search now. Also Katona and Savary (2008) state that Google AdWords is considered as leading within SEA by nearly all scholars. With regard to these statements one could argue that using AdWords data is representative for the whole field and thus sufficient enough to draw general conclusions about SEA.

3.4 Ad effectiveness measure

In order to clearly conclude the impact of call to action use within SEA there is a need to determine and define a way to measure effectiveness of search engine advertisements. There is no industry standard being used for the measurement of online advertising. Although, there

is one metric that has been used in academic studies extensively: Click-Through-Rate (CTR). CTR is based on two different metrics provided by the SEA platform; the number of ad views and the number of clicks-throughs. Ad views are the measures of an advertisement being displayed as a result to an users search query (Zeff and Aronson, 1999). Click-through is the measured number of times the displayed ad is actually clicked on (Zeff and Aronson, 1999). CTR is the rate between click-troughs and ad views, i.e. the number of times an ad is clicked on, divided by the number of times the ad has been displayed to a user as a result of the used search query. $CTR = \text{number of clicks} / \text{number of ad views}$ (Zeff and Aronson, 1999). In line with the previously discussed AIDA advertising model and the fact that an advertisement's purpose is to call the user into action, in this case clicking on the ad and buying the promoted product, the use of CTR as measurement for the ad's effectiveness is supported. Besides, as stated above, the use of CTR has been used as ad effectiveness measurement in a major part of previous studies: Hofacker and Murphy (1998), Kumar et al. (2003), Ghose and Yang (2009, 2010), Rutz and Trusov (2011), Haans et al. (2014).

With regard to the AIDA model another measurement of ad effectiveness will be used within this research. Since an advertiser is using promotions to affect, interest and call users into action to buy the promoted product, it would only be fair to also determine an ad's effectiveness by measuring its conversion rate. The conversion rate of a website, according to Chaffey (2003) is the percentage of website visitors that actually become a customer. Hence, buy the company's product or service. With regard to search engine advertisements, the ad's conversion rate, in that case, would be the number of conversions divided by the number of click through's (Haans et al., 2014). Bear in mind that this number of conversions is only the number of conversion which have been completed by website visitors generated by the SEA campaign and its ads, not the website total conversion number.

3.5 Data selection & study design

As mentioned above, data collection for the experiment will be based on a current AdWords search campaign of an actual company. With regard to company selection, the availability, amount of traffic, amount of conversions and the type of website and products have been considered. The chosen company is a pure click company serving as a web shop for smartphone accessories. Since click companies are entirely dependent of website traffic, web shops are highly active in the sponsored search field and this market represents a large field within SEA. Secondly, with regard to the call to action usage within ads and the effect they have on conversion rates next to CTR, a web shop with these type of products is ideal to

conduct this experiment. This because of the products being available for purchase right after the user clicks on the ad, the relative low price and the minimal risk of the ordered goods not being what the customer expects. All three aspects result in customers buying a relatively low involvement good, thus ordering faster. Besides, since these businesses are highly active within SEA there is also clear competition which allows the research to draw valuable conclusions which represent the actual market as much as possible. The actual company used for this experiment is *Applehoes.nl*. As mentioned above, *Applehoes.nl* is an online retailer of smartphone accessories with steady and high volumes of SEA traffic and conversions within a competitive field. Therefore, highly suitable to facilitate a SEA campaign for this experiment.

According to Malthora and Birks (2000) the use of (field) experiments is used commonly to research causal relationships. To do so, three conditions have to be met: “(1) concomitant variation, (2) time order of occurrence of variables and (3) eliminations of other possible causal factors” (Malthora and Birks, 2000; 242). As described previously the text advertisements within Google AdWords contain three main components. The headline, also called the title, acts like an link to the promoted website and is most likely to be noticed. The display URL, usually green, shows the address of the website. Giving the user an idea where they’ll go by clicking on the ad. The description lines can be used by the advertiser to describe the promotional message (Google AdWords Learning 2014, Haans et al., 2013). To be sure that the title, the headline and/or the first description line do not affect the outcome of this study, these ad components will be kept constant. The second description line will be central for this experiment.

In order to collect empirical data which can provide value to this research and answer the research questions the experiment will be set up as following; within every ad group two ad versions will be tested in the field within a specific time frame. Every ad group divides ad views as equally as possible based on the same keywords for every ad version. So within a specific timeframe both ad versions will be displayed to users to compete against one and each other. Every ad group will have two identical text advertisements which only differ from each other by description line two. One ad will contain a call to action in the form of an imperative. The other one won’t. Here the second description line will have a more generic text type of character. Due to practical reasons, it is not reliable to differ both ads just with adding or leaving the call to action and keeping the rest of the second description line the same. First of all, leaving the call to action out will result in a description line that is much shorter and having a lot of blank text space. This will result in an advertisement that looks

unusual, contain less information and is likely to be less attractive to the user. This is undesirable for the reliability of the experiment. Second, since these are current campaigns of an actual company having ads with blank space is undesirable by the company owner as well.

In figure 4 and 5 below an example of two ads within the same ad group that will compete against each other within the experiment are displayed. Figure 4 not having a call to action and figure 5 having one. The same structure and content will be consistent for every ad within every ad group throughout the experiment.

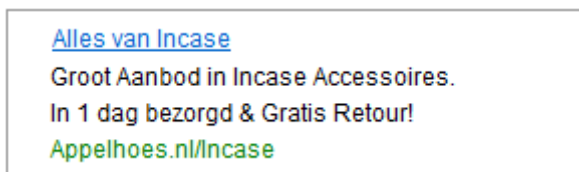


Figure 4: Ad version without call to action

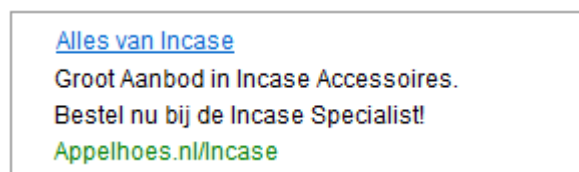


Figure 5: Ad version with call to action

As described above and with the variables taken into account the design of this study will be a 2 (call to action: yes, no) x 1 (number of keyword terms) x 1 (ad effectiveness) between-subjects experimental research design.

3.6 Variables & technique

In order to analyze the data and its outcomes, interaction between different variables and for hypotheses testing statistical techniques will be used within this research. In all cases the effect of the ad having a call to action or not (ad type) and the number of keyword terms will have an effect on the click-through rate and the conversion rate of the advertisement, thus the ad's effectiveness.

Ad type can be classified as two different categories, having a call to action within description line 2 of the ad; yes or no. Since ad type is a predictor, this variable is of categorical independent nature. To measure the influence that the ad type variable has on ad effectiveness a regression analysis will be conducted.

The number of keyword terms variable is also a predictor. The difference between ad type and the number of keyword terms is the fact the latter one is of normal nature. In order to measure the influence of the number of keyword terms the same regression analysis will be done.

Subsequently, the interaction effect of both variables will be tested to determine if the number of keyword terms has a moderating effect on the relationship between ad type and click-through and conversion rate. To establish the possibility of this moderating effect a regression analysis will be conducted. Since all three predicting variables can be analyzed using one regression an multiple regression analysis will be used to analyze the results.

Hypothesis	Analysis
<i>H1: Advertisements with a call to action are likely to have a positive effect on the ad's effectiveness.</i>	Multiple regression analysis
<i>H2: Advertisements with keywords containing more terms will have an positive effect on the ad's effectiveness.</i>	Multiple regression analysis
<i>H3: Advertisements with keywords containing more terms will increase the effect of call to actions on ad effectiveness.</i>	Multiple regression analysis

Table 3: Hypotheses and analyses overview

4. Data presentation

This chapter will present the gathered data. An explanation of the experiment setup and data collection will be given. The presentation of the experiment outcomes will follow together with a description and explanation of the statistical research method that has been used. The fourth chapter will end with findings with regard to the tested hypotheses.

4.1 Sample description

As mentioned in section 3.4 the sample data is collected by using a current AdWords campaign of an actual company. The sample consist of 100 ad groups where every ad group contains two ad versions. These ad versions are two identical text advertisements which only differ from each other by description line two. Having a call to action or not. As a result the sample data consists of the ad views, clicks and conversions of 200 text advertisements gathered during a time period of six months. Within this time frame, starting at April 1st 2014 and ending with September 31st 2014, a total of 73.323 views, 6.896 clicks and 430 conversion has been generated. Based on a number of 539 keyword terms within the ad groups. Using a sample with this amount of views and clicks increases the sufficiency and reliability of the tested results and their conclusions.

Ad views	Clicks	Conversions	Keyword terms
73.323	6.896	430	539

Table 4: Sample description

Due to the fact that the data is based on a field experiment with ratio variables no missings have been identified and thus haven't been excluded from the experiment. Every ad within this study has measured multiple ad views during the specific timeframe. As a result every CTR and conversion rate measure is relevant for the experiment. With regard to outliers, both for CTR and for conversion rate cases have been excluded from the experiment due to the chance that these influence the analysis and predictions too much. These cases had an relatively high CTR and conversion ratio (>30%) combined with a relatively low number of views (<50). The likelihood of these cases not being reliable enough, due to the high possibility of having a high CTR or conversion ratio by chance, is too high to include them in the experiment. From the 200 measure points a total of 18 outliers have been excluded. Leaving the outliers out of the model resulted in a better model fit (R-square = 0,003 with outliers vs. R-square = 0,009 without outliers), stronger beta values and higher significance of the predicting variables (see appendix table 1 and 2). Since the outlier values differ

substantially from the main trend of the data they cause the model to be biased. Outliers are characterized by being very different from all other measures. Keeping this in mind, the likelihood of the model predicting an outlier’s score accurately is very low. This even when the model is biased, because the outlier remains very different from the trend. Outliers affect the predicting power of the regression model in a negative way. Leaving the outliers out results in a less biased model with better predicting power. As a result the total of 182 text advertisement’s click-through rates and conversion rates has been analyzed.

4.2 Test results

In order to analyze the sample, the interaction between different variables and to test the statistical significance of these findings a multiple linear regressions has been executed. Since ad effectiveness is determined by CTR and conversion rate, both outcome variables combined are used a dependent variable within the regression. This, combined, regression analysis is conducted with the dependent variable based on a factor analysis which combined both CTR and conversion rate. The resulting factor score of this analysis has been used as dependent variable. The factor analysis resulted two factors whereas one clearly represented CTR (factor 2) and the other conversion rate (factor 1):

	Loading on factor 1	Loading on factor 2
CTR	,003	1,000
Conversion rate	1,000	,003
Eigenvalue	1,006	0,994

Table 5: Factor analysis results

This clear and equally divided representation of both variables by the two factors is also in line with the eigenvalues of the factors, which are similar to each other (see table 5). The eigenvalues measure the amount of variance that is accounted for by the factors.

By testing this combined outcome variables the regression analysis will provide results which give better insights and understanding into the relationship and interactions between the variables and their measurements. Representing the actual SEA environment in a more complete manner. Thus, providing a better ground to draw conclusions about.

Model fit, multicollinearity and cross-validation

Before getting into the actual statistical significance of the relationships between ad type, number of keyword terms and the effect these have on the ad effectiveness it is important to describe the regression's model fit. The model fit describes to what extent the model is successful in predicting the dependent variable. With all given variables the model fit of 0,9% is low ($R\text{-square} = 0,009$). Meaning that only 0,9% of the variability in the outcome can be accounted for by the predictors. The low model fit is most likely caused by the fact that there are many other (individual) factors that can influence the effectiveness of an sponsored search advertisement. For example the amount and presence of the ad's competition (other sponsored search results), the match of the search query with the ads of this competition, the match, relevancy and quality of organic search results, the user's focus and level of paying attention and the possible presence of aversion towards paid search results.

Secondly, it is of importance to determine if there is any possibility of multicollinearity within the model. Multicollinearity occurs when there is a strong correlation between two or more independent variables within a regression model. In order to evaluate the presence of any multicollinearity within the model the correlations between the predicting variables are taken into account. Since the correlation between ad type and the number of keyword terms is measured $-0,009$ (Pearson Correlation = $-0,009$) it turns out that there is no sign of multicollinearity. Thus, no need to remove any predicting variable based upon this result.

Finally, a cross-validation of the model has been executed. A model with good cross-validity indicates that it can be used between different samples without losing its predicting accuracy. Thus, a good cross-validity means that the model can be generalized. In order to cross-validate the model the method of data splitting has been used. Hereby, a random selection of the cases has been selected. Based on these random selected cases the same regression analysis has been conducted as for the whole sample. Comparing the outcomes of both regressions concludes into a good cross-validity of the model. Both the $R\text{-squares}$ of both models ($R\text{-square} = ,009$ vs. $R\text{-square} = ,003$) as the b outcomes of both samples are very similar. As a result of a good cross-validity the regression model generalizes well.

Relationship between variables

Despite the low model fit, the non-multicollinearity and good cross-validity of the model make it worthwhile to evaluate the relationships between the independent and dependent variables.

	B	Beta	Sig.
Call to action	,287	,212	,374
Number of keyword terms	,027	,041	,699
Call to action by number of keyword terms	-,105	-,269	,280
Constant	-,034	-	,883

Table 6: Regression B values & significance

The dependent variable used is the factor score of CTR and conversion rate, as mentioned before. Since ad effectiveness is determined by these two measures each predictor has a specific relationship towards the effectiveness of an advertisement. The B-values in Table 6 indicate the relationship and its direction between the predictors and the dependent variable, being the ad effectiveness. With regard to direction, positive B-values indicate a positive relationship and negative B-values indicate a negative relationship. Besides the direction being positive or negative the B-values also indicate to what degree each independent variable influences the ad effectiveness if the effects of all other independents are held constant.

Call to action ($B = 0,287$) has a positive relationship with regard to the outcome variable. When the number of keyword terms and the interaction effect of call to action by number of keyword terms is being held constant within this model, this indicates that the use of call to actions increases the ad effectiveness. So far this is only an indication. The statistical significance and hypotheses testing will follow in the next section (section 4.3). A similar positive effect on the outcome variable can be recognized for the number terms within a specific keyword ($B = 0,027$). Again, all other independent variables need to be held constant. In contrast to the use of an call to action and the number of keyword terms within an ad, the moderator effect of these two combined has a negative affection on the ad's effectiveness. Indicating that within this model the moderating effect, the number of terms within a keyword has, is of negative nature on the relationship between call to action's within ads and the ad effectiveness. As mentioned before the B-values only give an indication of the direction and to what degree the relationship between predictors and the outcome variable is, with other predictors held constant. In order to draw reliable and general conclusions about these values and relationships it is necessary to evaluate the statistical significance of these effects. Based on this statistical significance the previously formulated hypotheses will be tested.

Beside the B-value per predictor Table 6 also provides the Beta-values for each independent variable. This Beta-value allows to directly compare the above describes relationships with

each other. This provides in a better insight in the magnitude of each independent variable within the model. Recognizable is similar importance of the call to action variable (Beta= 0,212) and the interaction effect of call to action by the number of keyword terms (Beta = - 0,269). The obvious difference between these predictors is the direction of their effect, being respectively positive and negative. Evaluating the importance of the number of terms within a keyword within the model, the low Beta-value (Beta = 0,041) indicates a low importance compared to the other two predictors.

Regression results without moderating predictor

In order to analyze what the effect of the moderating predictor (call to action by the number of keyword terms) is on the total model a second regression analysis has been conducted. Within this regression the moderating predictor has been excluded. The regression results for this model are shown in table 7:

	B	Beta	Sig.
Call to action	-,044	-,033	,663
Number of keyword terms	-,026	-,040	,592
Constant	,133	-	,433

Table 7: Regression B values & significance of model without moderator

Compared to the first model, with the moderator included, this model contains opposite relationship directions for both the call to action (B = -0,044) as the number of keyword terms (B = -0,026) variable. Whereas in the model with the moderator these relationships are positive, the results of the second model indicate that the use of call to actions and more terms within a keyword have a negative effect on ad effectiveness. One must take into account that these B-values are low and thus the magnitude of these predicting variables within the model are low as well (call to action Beta = -0,033, number of keyword terms Beta = -0,040). In line with the low importance on the outcome variable of both predictors (low Beta-values) is also the significance of this second model. Where the significance of the number of keyword terms variable remains similar (Sig. = 0,699 vs. Sig. = 0,592) between both models (see table 6, table 7 and section 4.3), the significance of the call to action predictor is substantially lower when the moderating effect is excluded (Sig. = 0,374 vs. Sig. = 0,663). As a result, adding the moderating effect of number of keyword terms on the relationship between call to actions on ad effectiveness increases the contribution of the call to action variable to predict the model outcome (see also section 4.3).

4.3 Statistical significance & tests of hypotheses

Before testing the hypotheses it is interesting to analyze the significance of the predictor variables. The significance tells into what extent an independent variable is making an contribution to predicting the outcome of the model. The smaller the Sig. value (Table 6) the greater the contribution of this predictor to the model prediction is. For an independent variable to be statistically significant this value needs to be lower than ,05 ($p < 0,05$).

Evaluating the significance values of the predictors one can recognize that the moderator effect of call to action by number of keyword terms has the highest significance (Sig. = 0,280). Followed by call to action (Sig. = 0,374) and number terms within a keyword (Sig. = 0,699) independently. Thus, within this regression model the moderator effect has the greatest contribution of predicting the outcome variable. Close and second best contributor to the model is the use of call to actions within ads. If these findings are put next to the values of B and Beta a similar distribution between predictor variables' importance within the model can be recognized.

In order to conclude the data presentation and findings the previously formulated hypotheses will be tested. Based on the significance of the a certain hypothesis can be supported or rejected. The results with regard to the hypothesis testing will give ground to draw general conclusions about the relationships between the predictor variables and the outcome. Thus the effect these independent variables have on the effectiveness of an SEA advertisement.

H1: Advertisements with a call to action are likely to have a positive effect on the ad's effectiveness

The assumption that advertisements with an call to action increase the effectiveness of a sponsored search ad cannot be supported. Even though the call to action predictor has the second highest significance within the model it is still not statistically significant. Based on this result this study cannot statistically prove that the use of call to actions within a search engine advertisement has a positive effect on the ad's effectiveness. Resulting in the fact that *hypothesis 1: Advertisements with an call to action are likely to have a positive effect on the ad's effectiveness* must be rejected ($p > 0,05$).

H2: Advertisements with keywords containing more terms are likely to have an positive effect on the ad's effectiveness

The assumption that ads with keywords which contain more terms have an positive effect on the ad's effectiveness cannot be supported . Even though there is enough ground based on the literature to assume this, the results don't support this. Therefore, *hypothesis 2: Advertisements with keywords containing more terms are likely to have an positive effect on the ad's effectiveness* must be rejected ($p>0,05$).

H3: Advertisements with keywords containing more terms will increase the effect of call to actions on ad effectiveness

Finally, the assumption that ads with keywords that contain more terms have an positive effect, thus increase, the positive relationship that call to actions have on the ad effectiveness cannot be supported as well. Based on the previous hypothesis and their ground one could argue that this assumption is just. With regard to this, the significance results from the regression model also indicate that the moderator effect the keyword terms have on the effect of call to action on ad effectiveness is relatively the strongest. Surprisingly in a negative direction. Meaning that keywords with more terms decrease the effect call to actions have on an ad's effectiveness. Nonetheless, to draw reliable conclusions about the results this interaction effect should also be statistically significant enough. Therefore, *hypothesis 3: Advertisements with keywords containing more terms will increase the effect of call tot actions on ad effectiveness* must be rejected ($p>0,05$).

5. Conclusions

This chapter will provide an answer on the research question this study focuses on. Together with the reviewed issues within the literature this will be the fundament for the conclusion that will be given with regard to this research. This chapter will end by providing practical implications and the thesis' limitations and future research suggestions.

5.1 Discussion

The purpose of this research is to investigate the influence which the use of call to actions within search engine advertising has on the effectiveness of the text advertisements. In order to provide a clearer insight into this effect a brief review of previous studies has been conducted, a theoretical framework has been constructed and empirical actual market data has been tested. To draw reliable and general conclusions about this study's findings and to answer the research question firstly there is the need to create a better understanding of the field where this research's topic takes place. In order to do so the following questions have been formulated regarding issues that have been reviewed:

1. What is Search Engine Advertising and how does it work?
2. What are call to actions and what is their purpose within text advertising?
3. How can SEA text ad effectiveness be measured?

Next to these subjects empirical data has been collected in order to test the formulated hypotheses (Table 8). Together these will be the fundament in order to give an answer to this study's research question: *"What is the effect of call-to-actions on text advertisement effectiveness within SEA?"*

Hypothesis	Independent variable	Dependent variable
<i>H1: Advertisements with a call to action are likely to have a positive effect on the ad's effectiveness.</i>	Call to action within ad	Ad effectiveness
<i>H2: Advertisements with keywords containing more terms will have an positive effect on the ad's effectiveness.</i>	Number of keyword terms	Ad effectiveness
<i>H3: Advertisements with keywords containing more terms will increase</i>	Call to action within ad by Number of keyword terms	Ad effectiveness

the effect of call to actions on ad effectiveness.

Table 8: Recapitulation of the hypotheses

What is SEA?

With regard to Search Engine Advertising and the way this mechanism works Ghose and Yang (2009) define this as a advertising channel “...where advertisers pay a fee to Internet search engines to be displayed alongside organic (non-sponsored) Web search results”. The question is how do these ads get displayed here? These advertisements as search results are determined by the search queries conducted by the users. So a user enters a search query and is provided with relevant paid search advertisements. In contrast to the organic search results, sponsored search results aren’t free of charge for the advertiser. Advertisers have to pay a fee every time a click on their ad is measured. Hence, cost-per-click (CPC) advertising. (Jerath et al., 2014; Ghose and Yang, 2009). To conclude, the SEA mechanism thus is based on two primary things; the advertisers submitted maximum cost-per-click price and the relevance of the submitted keywords with the user’s search query (Feng et al., 2007).

Call to action purpose

With regard to the call to action purpose within text advertising, a closer look into the advertising purpose in general has been given. Based on the AIDA model (Strong, 1925) there are several steps which an ad has to take in order to promote the advertisers message. An ad has to draw attention of the user, create interest and desire for the user and take the user in to action to buy the promoted product or service. This last step is where the use of call to action comes in. The purpose of the last AIDA step is to call the user in to action. Thus, activating the user in order to buy the advertiser’s product. According to Janal (2000) in order to have an effective online advertisement it is necessary to use call to action statements within ads. Janal (2000) uses the example of “Order today!”. Another example could be “Buy now!” or “Order now!”. The latter one has been used within the experiment of this study. So basically, a call to action within text advertising is an statement in the imperative form which has the purpose to draw the customer in to buying the promoted product after being exposed to the promotion.

Ad effectiveness measure

Put in SEA perspective the call to action has the purpose to trigger the user to click on an advertisement and buy the promoted product. If the user does so, the effectiveness of this ad for this specific user is high. But how does one measure the effectiveness of search engine advertisements? Even though there is no industry standard, one metric has been used in

academic studies extensively: CTR. Click-through-rate is based on the number of ad views and the number of clicks on a certain ad. CTR is the rate between clicks on an ad and its ad views. $CTR = \text{number of clicks} / \text{number of ad views}$ (Zeff and Aronson, 1999). Besides CTR one can also argue that conversion rate should be measured to determine ad effectiveness as well. With regard to the AIDA model, the user should be put into action to not only click on the ad but also buy the promoted product or service. The conversion rate of a website is the percentage of website visitors that actually become a customer (Chaffey 2003). Put in SEA perspective the conversion rate is the number of conversions divided by the number of advertisement click-throughs (Haans et al., 2014). Concluding, the effectiveness of an online advertising ad is measured by its CTR and conversion rate.

Assumptions & findings

Based on the reviewed studies and theory the assumption is made that advertisements which contain a call to action have a positive effect on the advertisements effectiveness. Whereas the action that has to be taken, with regard to SEA, is a simple mouse click this assumption seems to have ground. Testing this assumption based on the empirical data the results show that there is a positive relationship between call to actions within SEA ads and their effectiveness. In order to draw reliable conclusions about this finding, this relationship has to be statistically significant. Unfortunately, this is not the case and the assumption that call to actions indeed have a positive effect on ad effectiveness cannot be supported.

As described earlier, the SEA mechanism is based on primarily two things; the maximum submitted cost-per-click and the submitted keywords. Keywords are submitted by the advertiser to a specific ad in order to trigger the most relevant ad to a specific search query. These search queries represent the consumer's purchase intention. Based on the shopping goals theory (Lee and Ariely, 2006) one could argue that the use of different keyword characteristics by consumers can be attached to different shopping stages consumers pass. In early stages consumers are orienting and collecting information instead of directly buying products. Whereas in later stages concrete shopping goals have been set and the search behaviour is different. Information seeking is broad and generic, representing shorter (in terms of number of containing words) keywords being used by the consumer. When shopping goals are determined by the consumer, the users will use more specific, describing and longer keywords in order to find the product one seeks for. With this being said, the assumption has been made that keywords which contain more keyword terms are likely to have a positive effect on the ad's effectiveness. Based on the results of the empirical data this assumption,

unfortunately, cannot be supported. This effect is first of all small, but most important not statistically significant. Thus, cannot be generalized and supported.

Secondly, another assumption has been made with regard to the number of terms within a keyword. Assuming that call to actions have an positive effect on ad effectiveness alongside with the number of terms within a keywords there is also ground to assume that between these predicting variables an interaction effect exists. Therefore the assumption is made that the number of keyword terms also affects the effect of call to actions on ad effectiveness in a positive way. Besides, not only based on extent studies one could also argue for this assumption by the fact that it represents the actual SEA situation in a better way. According to the tested empirical data this effect points in the opposite direction of the assumption. Which in interesting for further research to determine why (section 5.3). Nonetheless, the tested results also showed no statistical significance regarding this assumption. Nor the assumption as the opposite result can be supported.

5.2 Managerial implications

The online marketing possibilities are becoming larger and larger and this is reflected in the total market worth of SEA that is growing and being forecasted to surpass \$57 billion for 2014 (Marketingcharts 2012). With this knowledge managers, marketers and company owners should recognize the huge potential that search engine advertising has and make sure that within their organization an online marketing strategy exists within the marketing mix. Furthermore, they should be aware of the fact that when using search engine marketing their ads have the necessity of attracting attention, creating interest and desire and lastly to call the user into action to buy their promoted product or service. Whether that is by using call to action within their text advertisements stays unclear. The need to strategically think about their online campaigns with regard to better results is clear. Therefore, results of the ads should be tracked critically and these ads should in some way distinguish themselves from competition. Furthermore, there is a necessity of relevant keywords that have to be submitted by the advertisers. The relevancy of keywords with regard to the users' search queries provides in better competitiveness between the search results. Besides, relevant keywords give better ability to catch the consumer in the right shopping stage when one is conducting a search query.

5.3 Research limitations & future recommendations

Like the majority of researches, within this research there are some limitations. Despite the fact that empirical data has been used to conduct this study not all influence factors were possible to control for in the analysis. As mentioned before possible reasons for the low model fit could be the fact that there are external factors that influence the users behavior and thus the ads effectiveness. Such as, the amount and presence of ad's competition, the match of the search query with the ads of this competition, the match, relevancy and quality of organic search results and the user's focus and level of paying attention and the possible presence of aversion towards paid search results. Therefore, as recommendation for future studies, it could be interesting to conduct a research to these two latter factors with regard to SEA ad effectiveness. For example, an experiment could be set up where users are being tracked while conducting search engine searches and their behavior when exposed to search results with regard to call to actions could be analyzed.

Secondly, a limitation of this research is the fact that, due to practical reasons, only one company's AdWords campaign data has been used. This limits the ability of the study to make broad and generic conclusions about the search engine advertising field as a whole. One company sells a specific product category within a specific market. Therefore, another suggestion for future research could be to collect and merge data of a broad variety of campaigns serving more types of markets. Analyzing this data gives more insights in the whole SEA field.

Furthermore, a limitation for this study lies in the experiment setup. As described in section 3.5, due to practical reasons, it is not reliable to setup an experiment where one ad contains the call to action and the other, equal ad, just without the call to action. The result is an unusual ad because of the presence of blank content space within the description lines. In order to avoid an unusual looking ad, which contains less information and is more likely to be unattractive to the user, a more general description line has been used as counterpart for the call to action (see Figure 4 and 5). Nonetheless, because the ads have been used in an active campaign of an actual company having a too general description line is undesirable as well. Too general ads result in having less competitiveness within the SEA market. Within this experiment the counterpart of the call to action description line is an unique selling point of the advertiser. Despite being a commonly used an generic one, there is a possibility that ads with this USP are more effective to some users than the ads containing the call to action. One could argue that this weakens the effect of the call to actions within this data set and thus no

statistically significant results have been found. In order to statistically test for this assumption further study is recommended. As described previously future research is recommended to be conducted on the behavior of users while being exposed to search engine search results. Within this behavior one could also account for the effect of specific ad content, for example certain unique selling points.

Future research is also recommended to conduct on the effect of keyword terms on ad effectiveness. Within this research the assumption has been made, based on shopping stages theory, that longer keywords have an positive effect on ad effectiveness. Individually this effect showed no significant effect. But, used as a moderator on the effect of call to actions on ad effectiveness the keyword lengths indicate a negative relationship. Even though this was not statistically significant the results showed the highest significance and a non expected negative direction. In order to determine why this relationship is caused, future research is recommended. For example by solely focusing on keyword characteristics with regard to ad effectiveness and leave other factors out.

Future research on the use of call to actions within SEA is also recommended. Since this study showed that there is theoretical ground to assume that this relationship is indeed positive and the empirical data showed slightly the same result. Unfortunately, this result was not statistically significant. Therefore, collecting more empirical data on this subject would be interesting in order to analyze if hopefully better results can be found and an answer could be given if call to actions indeed have an positive effect on ad effectiveness within SEA. For now, saying so is just speculation.

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Appendix

Regression results without outliers

	B	Beta	Sig.
Model 1			
Constant	-0.340		.883
Call to action	0.287	.212	.374
Number of keyword terms	0.027	.041	.699
Call to action by Number of keyword terms	-0.105	-.269	.280

Table 1: Regression model results (outliers excluded)

Regression results with outliers

	B	Beta	Sig.
Model 1			
Constant	-0.500		.880
Call to action	0.268	.135	.568
Number of keyword terms	0.007	.007	.943
Call to action by Number of keyword terms	-0.067	-.117	.633

Table 2: Regression model results (outliers included)

Regression results without moderating predictor

	B	Beta	Sig.
Model 1			
Constant	0.133		.433
Call to action	-0.044	-.033	.663
Number of keyword terms	-0.026	-.040	.592

Table 3: Regression model results (moderator excluded)

	Loading on factor 1	Loading on factor 2
CTR	,003	1,000
Conversion rate	1,000	,003
Eigenvalue	1,006	0,994

Table 5: Factor analysis results