

# **Recommended Keyword Match Types for Bing Ads' Campaigns on Mobile Device in France**

## **Case: Company X**

An Ho Tran Vinh



<b>Author(s)</b> An Ho Tran Vinh	
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<p>This Bachelor's thesis is a project-based study conducted for Company X, an internet media company specialized in data management. The thesis examines the effect of a keyword element on the success of search engine advertising campaigns. The campaigns were run for Website Y, a domain of Company X's client. The overall purpose of the study is to test the performance of keyword match type of advertising campaigns on a specific search engine. The final objective is to select the most suitable keyword match types for Bing Ads' campaigns of Website Y in French market and on mobile device. It is decided based on the need of both parties.</p> <p>The thesis consists of a theoretical framework and a project management method which is divided into two chapters. The theory section contains information about search engine advertising, especially on Bing Ads platform with recent statistics. The primary part of this chapter is characteristics of keyword in search engine advertising and the introduction of keyword match type which is an unfamiliar term for readers. A list of common metrics with their definitions used to assess the performance of campaigns is also presented.</p> <p>The project management chapters are written according to the order of project tasks. First, two face-to-face interviews were carried out between the author and Company X representative. Second, campaigns were implemented and monitored on Bing Ads platform for a time span of 42 days. Next, data were collected using daily reports of Bing Ads and the author's report. The last step was to present data using Excel graphics tools.</p> <p>As the results of the project, the author concluded that not all keyword match types should be used for the campaigns of Website Y. Some of them failed to deliver positive profit despite having advantageous traits over the others. The comparison between theory and real performance data highlights the importance of frequent assessment and tests on different options of search engine advertising elements to decide which ones work best for a project.</p> <p>Based on the conclusions, recommendation on the most suitable keyword match types was given to Company X. The results of this study can help the company maximize profitability of the campaigns and be applied to their other projects with proper adjustments. In the last chapter, process and outcome of the project are evaluated from the author's perspective and commissioning company feedback. The thesis reinforces the knowledge of search engine advertising and provides essential skills for the author in working life.</p>	
<b>Keywords</b> Keyword match type, Bing Ads, performance statistics, search engine advertising	

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# 1 Introduction

For all internet users, seeing advertisements (ads) on search engines like Google or Bing has become an inevitable part when searching for anything on these websites. This form of advertising is called Search Engine Advertising (SEA) or simply **Search Advertising**. Behind these small pieces of ads are a lot of efforts and technical investment from marketers and advertisers. However, the effect of one factor on the success of a SEA campaign might have been underestimated: keyword match type (definition will be given in “Key Concepts” section). It is still an unfamiliar term for laymen and non-professional advertisers, and consequently, the importance of proper selection of keyword match type has not received enough attention. Therefore, the thesis’s aim is to highlight its influence through a project carried out for Company X on the advertising platform of Bing. This chapter provides an introduction to background, main objective, project tasks, and case company of the thesis. Additionally, other sections like project scope, benefits for involved parties, international aspect, and key concepts are presented.

## 1.1 Background

Dated back in 1994, it was not until 15 years later that the trend of advertising on the internet became highly popular among international brands and conglomerates (Charlesworth 2017, 198). The world of online advertising has never been more dominant like it has been in recent years and still growing vigorously every day. In their report published in 2017, Magna media agency predicted that the global spend on online advertising will reach 237 billion US dollars in 2018, which will equal around 44% of total money spent on all advertising media (Handley 2017). Within the wide scope of online advertising, search engine marketing (SEM) has been getting immense attention from marketers. Besides organic method called search engine optimization (SEO), sponsored ads on search engines have made their way through our virtual life, which is SEA. Commonly known as search advertising, paid search or search listings, most marketers also use the term SEM interchangeably with search advertising now.

Some of the most popular search advertising platforms are Google Adwords, Bing Ads, Baidu, Gemini, and so on. While Google Adwords has become a dominant player in the field, Bing Ads has gained more recognition and appreciation from advertisers due to a variety of advantages. As reported by WordStream (2018), using Bing Ads brings a lot of benefit to marketers: fewer users means less competition and cheaper ads, more advanced control over campaigns, better targeting on device and demographics, Bing search partner network, and so on.

Although there are many elements to be considered when running a search advertising campaign, one of the most important ones is keyword. The reason is straightforward: people perform searches on search engine by typing in words and the results are shown, in return, based on these search terms. Hence optimization on keyword level is crucial yet exhausting for marketers. From internet users' perspective, the degree of relevance of the ads to what they are searching for is intriguing. Some of them match perfectly with users' searches, while others are merely beside the point. Let look at an example: an advertiser has three ads which contain "blue shirt", "men shirt" and "blue men shirt" respectively. Someone searches for "blue men shirt" using Bing. On result pages, to common belief, the ad which has the whole term "blue men shirt" will be shown as it matches exactly what that person is looking for. However, the other two ads may be displayed instead. The reason is that Bing Ads or any search advertising platform has other criteria for ads selection, not based on the word itself only. This fact leaves many marketers in a confusing state when it comes to campaign optimization on keyword level.

Being an internet media company specializing in search ads campaign, Company X deals with millions of keywords, hence the importance of optimization is multiplied enormously. Bing Ads has been utilized by the company to leverage its clients' domains and has brought a considerable amount of net profit. The ability to manage campaigns on keyword level on Bing Ads can help the company further scale up its business and win the edge over competitors. Therefore, the purpose of this thesis is to give a recommendation on the most suitable keyword match types for its campaigns for a client's domain.

From the author's perspective, the thesis is a result of a specialized internship and knowledge gathered throughout study time in university. With a future career path set towards digital marketing, specifically in search advertising, this project broadens the author's knowledge as a future marketer and greatly benefits in his job seeking process after graduation. As a realistic project where practical skills in collecting and analyzing data are heavily involved, the thesis will be an interesting and professional experience in the author's portfolio.

## **1.2 Project objective**

The aim of this thesis is to provide practical information about the performance of keyword match type on Bing Ads platform and choose the most fitting ones for Company X. The recommendation is used for their client's domain, which is mentioned as website Y in the thesis. The company can consider implementing the result in ongoing and future cam-

paings. The official project objective is worded as testing the performance of different key-word match types on Bing Ads platform to selecting the most suitable ones for mobile device campaigns in French market of Website Y – a domain of Company X’s client.

The project objective is divided into project tasks (PT) as follows:

PT 1. Designing theoretical framework for the project

PT 2. First interview with company representative on campaign design

PT 3. Second interview with company representative on selecting optimal metrics to measure campaigns

PT 4. Implementing and optimizing campaigns

PT 5. Collecting and presenting data

PT 6. Giving recommendations and evaluating the project

The overlay matrix below demonstrates the theoretical framework, project management methods and outcomes for each project task mentioned above.

Table 1. Overlay matrix

Project Task	Theoretical Framework	Project Management Methods	Outcomes
PT 1.	Designing theoretical framework	Literature research	Theoretical framework
PT 2.	Bing Ads campaign set-up. Company’s need	Company interview. Desktop study	Campaign design
PT 3.	Bing Ads performance metrics. Company’s requirements	Company interview. Desktop study	Campaign performance metrics
PT 4.	Bing Ads’ instruction on how to run campaigns. Company procedures	Working on Bing Ads platform	Campaigns implementation and optimization
PT 5.	Outcome of PT3. Reports from Bing Ads and the author	Download report from Bing Ads. MS Excel	Data collection and presentation
PT 6.	Outcome of PT5 and project objective.	Draw conclusions and assess the project	Recommendations and project evaluation

### 1.3 Project scope

The thesis topic concentrates solely on sponsored ads on search engines so theories about other forms of online advertising will not be mentioned in detail. Campaigns of the project are run on Bing Ads hence information about other search advertising platforms is

excluded to avoid confusion for readers and distortion of data. Among other factors surrounding a search advertising campaign such as ad group, content, bid amount and so on, the author only focuses on keyword match type in this thesis.

Since every company and agency has their own campaign procedures, all settings, optimization methods, and data analysis criteria used in this project are carried out according to methods and need of Company X. Moreover, results and recommendations of the thesis depend largely on the client's website, and the choice of market and device to implement the campaigns. In this case, Website Y is a shopping comparison website and campaigns are set up for mobile device in France.

#### **1.4 International aspect**

Company X has been growing steadily with an international customer base. It currently has campaigns running all over 74 countries. Test market of the project is France, hence the diversity of French population is involved. The conclusions of this thesis serve as recommendations for not only French market but also French-speaking countries. Pilot campaigns on mobile device for other markets can be planned using knowledge and methods applied during thesis process.

#### **1.5 Benefits**

With a view to leverage and sell its data, Company X constantly searches for ways to advance and maximize profitability of its projects. The company expresses great interest in optimizing at keyword level since it is usually ignored and overlooked, whilst holding a lot of space for improvement. Also, mobile device is its concern because, as reported by Meola from Business Insider in 2016, "Mobile search is growing phenomenally, with Google reporting over 50 percent of searches now being on mobile devices and growth in mobile ad revenues increasing more than 20 percent per year" (Rowles 2014, 145). Currently, Company X has mobile campaigns running in French market so the recommendations from the thesis can be applied and benchmarked immediately. Moreover, with slight adjustments, the company can apply the results to other shopping comparison websites in its portfolio.

The project is run completely based on a domain of Company X's client, Website Y, hence the client benefit directly from it. In the light of the thesis's recommendations, changes can be made directly to the current campaigns to help the website gain more traffic and profit. Overall, the client has their domain leveraged and enhanced.

The author is pursuing specialization in digital marketing and the topic deepens his/her knowledge in search advertising, one of the fastest growing fields of online advertising. During the research process, the author had a chance to discover a wide range of academic knowledge and information related to the topic and apply them to a real project. The skills required for project management are practical and useful for working life. The topic is considerably new but important with a variety of information to lay hands on and unfold, which makes the author's CV stand out. Having been an intern at Company X, the author hopes to score a position in the same company or at least work in the same field after graduation.

## 1.6 Key concepts

**Search Engine Advertising (SEA)** is a form of online advertising in which advertisers pay for their ads to show on search engine result pages (SERPs) when someone searches for terms related to their business (WordStream 2018). It is often preferred as paid search or simply **search advertising**. Advertisers are charged whenever their ads are clicked, which makes it a dominant part of **pay-per-click (PPC) advertising** (Smith 2015, 26). Therefore, many marketers use the term PPC interchangeably with search advertising.

**Bing Ads** is "a pay-per-click (PPC) advertising platform used to display ads based on the keywords used in a user's search query." (Microsoft Docs 2018)

**Keyword** in pay-per-click advertising are words that advertisers think people will type in search engine, hence decide to bid on them.

**Keyword match type** is a function to decide how closely a search term must match an advertiser's keyword. Search term (or search query) is a string of text that people perform a search on any search engine. There are five main match types available on Bing Ads: Broad, Modified Broad, Phrase, Exact, and Negative. (Bing Ads Help Center 2018.)

**Performance statistics**, in this case, are metrics to measure the performance of campaigns on Bing Ads. Based on them, advertisers can choose suitable optimization methods (Bing Ads Help Center 2018). Some of these metrics are clicks, click-through rate (CTR), and conversion rate (CR).

## 1.7 Case company

Company X is an ad efficiency and traffic generation company. It acts as a platform for audience acquisition for other global media companies. Founded in 2004, the company is part of one of the leading digital groups in Europe which envisions and manages ten other digital marketing businesses. Company X is based in Madrid, Spain and has an international client portfolio with online advertising campaigns launched in more than 70 countries. The company differentiates itself from competitors by focusing on a valuable long-term relationship as clients are considered as partners with cost and revenue being shared on an agreed profit-share basis. Other competitive edges are high-quality traffic, in-house technology and working on massive scale.

The thesis is written based on website Y of Company X's client. Website Y is a shopping comparison website which lets users compare the price of products from various brands to find the best deals. It currently has search advertising campaigns running in five countries (USA, Great Britain, Canada, Germany and France), two platforms (GADS and Bing Ads) and three devices (PC, tablet, and mobile). All of them is managed by Company X. For the past six months, campaigns for French market on PC has been growing fast with high monthly revenue, which urges the company to duplicate the success on mobile device. Having worked on campaigns for Website Y, the author saw the opportunity to develop a thesis topic based on company's need.

## 2 Search engine advertising

Search advertising is no longer a new practice in online advertising or digital marketing in general. In the thesis, the author chooses Bing Ads as a search advertising platform to launch campaigns with a view to studying the effect of keyword match type on SEA performance. Based on the need of commissioning company, the campaigns are designed for French market and mobile device. Hence results and recommendation are given considering these criteria. The figure below is the theoretical framework developed by the author which is utilized in this project.

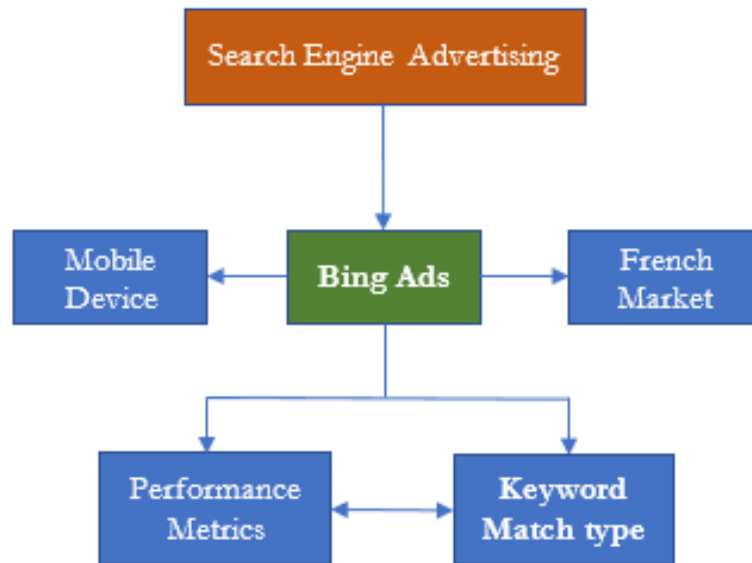


Figure 1. Theoretical Framework

This chapter covers contents of the framework in figure 1, which include search engine advertising and Bing Ads platform (in general and in specific market and device). Keyword match types and performance metrics are presented under the scope of Bing Ads, as they can be different in other search advertising platforms.

### 2.1 Overview of search engine advertising

According to Derby Brown, "The business that considers itself immune to the necessity of advertising sooner or later finds itself immune to business". Advertising has become an essential part of not only marketing mix, but also of business model of any company. The need of providing outstanding yet quality content to attract customers is increasing drastically in today's turbulent market. Besides mass media such as newspaper, banners, radio, and TV, online advertising has become more and more important, or even compulsory, since the audiences have access to and spend most of their time in new media platforms

like internet and mobile phones than ever before (Hackley & Hackley 2018, 14). Considered as an advertising medium, Internet bares endless opportunities for marketers to advertise with a broad spectrum of ads forms. A few dominant examples are pop-ups, sponsorships, rich media, banners, interstitials, behavioral targeting and paid searches (Belch & Belch 2015, 502). Among these, paid search is categorized by Thorson and Duffy (2012, 8) as one of the modern methods to “target the right consumer with the right message”. Paid search or search advertising is an online advertising form where ads are shown when someone performs a search on any search engine (WordStream 2018). In a more simple way, it is the ad which is displayed when internet users search for anything online. For that reason, only ads which are relevant to what users looking for are delivered, making search advertising more well-targeted than other tools of advertising.

Together with search engine optimization (SEO), search advertising makes up Search Engine Marketing (SEM), but recently marketers have adopted the term SEM to indicate only paid search (Search Engine Land 2018). Search engine optimization (SEO) is the process of optimizing a website so that people are able to look it up easily on any search engine (Ramos & Cota 2009, 140). It means that when someone types in a keyword which is related to a business, its web page will be shown on a higher position than those of competitors, without any cost. Whereas in search advertising, advertisers must pay to have their ads shown on search engine result pages (SERPs). More specifically, they are charged whenever someone clicks their ad, which makes it part of PPC advertising. Formally, Michael and Salter (2008, 149) define PPC as “an advertising technique used on websites, advertising networks, and search engines”. It has quickly become a highly effective tool in advertising since advertisers can track the exact amount of times their ads are shown (impressions), how many people click them and have they got any result from those clicks (Ramos & Cota 2009, 180).

In a nutshell, there are two kinds of results or links on SERPs: unpaid (organic) and paid. Unpaid results come from SEO and paid ones are the outcomes of paid search. The common doubt is why marketers should pay for search advertising/PPC instead of focusing solely on SEO. The answer lies in one of the benefits of paid search which has been mentioned previously: more precise customers targeting. If someone searches for an exact name of a company, their website should be the first link appear on SERPs. However, if customers search for products or services, results from that company can hardly make it to the top of SERPs, or even be listed on the first result page. (Ramos & Cota 2009, 182.) For example, on Bing’s first result page for the search term “samsung galaxy 9”, the first four results are sponsored ads and none of them comes from Samsung’s webpage (Figure 2). Not to mention they are irrelevant to that search query. This is very crucial for the

case Company X, as the project and recommendations are made for website Y, a shopping comparison website.

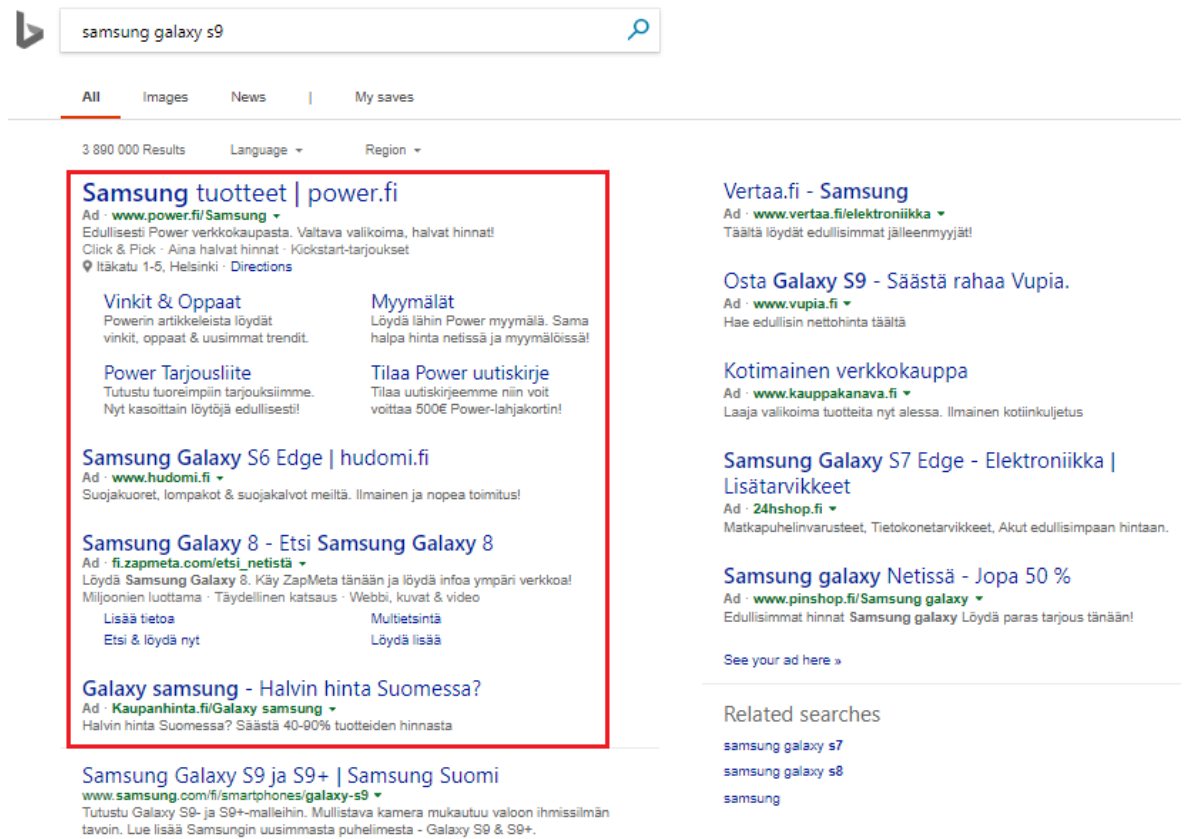


Figure 2. Bing’s first SERP for the search term “samsung galaxy s9” (Bing search result on 10 March 2018)

## 2.2 Bing Ads – an overlooked search advertising platform

### 2.2.1 Bing Ads in general

In September 2005, as an effort to retain online search market share from Google and Yahoo, Microsoft revealed its own system offering paid search service which was used by MSN (the company’s own web portal with a collection of software and services for Windows devices). Until that time, Yahoo was thoroughly in charge of selling all the ads on MSN’s search engine. With the new service, Microsoft’s hope was to pair with many features of Google’s system which were considered the most advanced and state-of-the-art ones at that time. The greatest improvements in MSN’s technology used for the system are its capability to deliver ads based on demographic characteristics of searchers, and date and time the ad is shown. Advertisers also had the benefit of bidding different amounts based on those characteristics. (Hansell 2005.) The system was on trial until May 2006 when Microsoft officially launched it under the name Microsoft adCenter (Slegg 2006).

In January 2010, Microsoft disclosed a joint venture with Yahoo in which PPC ads were delivered to searchers on Bing and Yahoo! Search simultaneously. It was considered as an attempt by both companies to establish a cooperative search advertising network which provided users more fulfilling experience when placing online ads on large-scale. (Trend Marketers 2013.) Microsoft adCenter was officially rebranded as Bing Ads in September 2012. As reported by Tina Kelleher, Microsoft search specialist, Bing Ads was more than a name change, it lifted up PPC advertising practice to another level with more convenient features which assist advertisers better in managing their campaigns. Enhancements included “a new web interface, better ad rotation controls, and agency enablement tools that let agencies manage multiple accounts more easily”. Those improvements had shown Microsoft’s continuous process of listening to feedback from users and making necessary changes. At the same time, the company announced their Yahoo Bing Network, which was previously known as Search Alliance. It meant Bing Ads’ users could directly acquire both Bing and Yahoo audience on one platform. (Davies 2012.)

At the present, Microsoft describes Bing Ads as a PPC advertising platform which shows ads “based on the keywords used in a user's search query” (Microsoft Docs 2018). Search ads using Bing Ads can appear on the search results page on worldwide websites. These sites are the combination of “Bing, AOL, and Yahoo owned and operated sites as well as Bing, AOL, and Yahoo syndicated search partner sites. Syndicated search partner sites are sites that use Bing and Yahoo search results” (Bing Ads 2018). AOL is an internet and media company based in New York which provides online content, services, and software. Bing Ads provides a 29-second video on their Youtube account showing how it functions for businesses (<https://www.youtube.com/watch?v=eiSPjnxr-48>). On its homepage, primary competitive edges of Bing Ads are succinctly highlighted with access to 30% of US paid search market at no cost, a far-reaching network of websites and the ability to import directly Google Adwords campaigns which was introduced in 2012 (Figure 3).

Bing Ads

## Get more customers

Reach 30 percent of the US PC search market when you join Bing Ads for free. Only pay when customers click on your ad. No minimum fee.

Cast a wide net

Instantly appear on Yahoo, AOL, and related partner sites.

Gain mobile customers

Reach an on-the-go audience, both local and beyond.

Google AdWords compatible

Import existing AdWords campaigns directly into Bing Ads.

Figure 3. Bing Ads' summarized features (Bing Ads 2018)

Briefly, in search advertising, advertisers buy ads on search engine from search engine company such as Google or Microsoft based on keyword (Smith 2015, 25). As reported by Carolanne Mangles, thanks to Google being the most popular search engine worldwide with 74.54% of market share by 2017 (Smart Insights 2018), Google Adwords has become the number one platform when it comes to PPC advertising. However, based on Microsoft's report, Bing had roughly 9% market share of search traffic in the world up till August 2017 (Rusen 2017). Though minuscule, if the holistic picture is contemplated, there are almost 3.58 billion internet users in the world, which means about 322 million people are using Bing as their search engine. Within that impressive amount, 65 million users are wholly unreachable by Google, according to ComScore 2017 report (Search Engine Land 2018). With that being said, Bing Ads holds tons of opportunities for marketers to scale up their campaigns. In their book, Thorson and Duffy (2012, 128) noticed that Bing delivers superior search results, which is a huge plus since ads displayed on it are often more on target. In fact, unique search results from Bing Network yielded up to 27% of the clicks on Bing Ads based on internal data released in July 2017 by Microsoft.

Besides, there are more reasons why Bing Ads should be included in PPC campaign of advertisers. In the beginning stage, Bing Ads was built distinctly from Google Adwords hoping to differentiate itself from the competitor. However, it turned out to be a major obstacle to use and manage the platform for marketers who already knew Adwords at the back of their hand. Therefore, Bing Ads has started to add more familiar features and re-shaped its interface simulating the one of its rival. The result is favorable: thanks to similar account's structure, campaigns can be imported straight from Adwords to Bing Ads with the option to modify their settings. (Search Engine Land 2018.) Bing Ads Marketplace Trends site has a wide selection of visualization tools which assist advertisers in improving their campaign planning with easily accessed data ranging from industry to device and location. Bing Ads Intelligence is an app to help marketers in keyword research in Excel which available to download for free. It can be used with a large list up to 200,000 keywords to carry on integrated analysis on keyword, together with estimated bids and find keyword's particular metrics like impressions, clicks, and cost per click. Last but not least, Bing Ads' channel on SlideShare is a powerful source of industry insights with latest internal data, reports and upcoming features. Advertisers can utilize this beneficial information to make better decisions for their paid search strategy and campaigns. (Newstex Entrepreneurship Blogs 2015.)

Company X has had great experience using Bing Ads for clients. From its point of view, Bing Ads has been improved gradually in both user interface, functionality, and profitability. The platform has short loading time, fast interaction with commands, user-friendly layout including clear instructions. One of the most prominent competitive edges of Bing ads lies in its editor. Bing and Google both own an editor which enable advertisers to edit in bulk, make and review changes offline before uploading, manage multiple accounts simultaneously. Despite having the same functions as Google Adwords Editor, in practice, Bing Ads Editor inherits all the benefits from its platform: faster launch time, quicker data process and ability to import campaigns from Adwords. Bing Ads has helped Company X reach the audience that Google is missing out and brought significant earnings. For website Y, profit from Bing was nearly four times higher than that from Google, with 24,7% and 11,4% return on investment (ROI) respectively. Resulting from fewer competitors using the platform, Bing Ads' average cost per click was lower than that of Adwords by 19,5%. All data is taken from company's 2017 report for the period of three months, from 1 September till 31 November 2018.

### **2.2.2 Bing Ads in the chosen market and device**

For the purpose of the thesis, the author has launched real PPC campaigns on Bing Ads for website Y with the help of Company X. Since there has not been any certain or long-term campaign, France and mobile are chosen as trial market and mobile. As stated in Microsoft's 2017 report, besides 33% in the US, Bing also owned quite considerable market shares in other countries. In France, it had up to 19% market share, which is considerably high when compared to 9% worldwide. (Rusen 2017.) According to Company X's 2017 report, from 1 September till 31 November, PC campaigns in Bing Ads yielded twelve-time higher profit than Google in French market. Regarding cost per click, Adwords cost roughly 24,9% more than Bing did. Therefore, France has been one of the most important markets in Bing Ads campaigns of website Y.

As mobile campaigns in other markets have been running efficiently and generated high profit, Company X wants to duplicate this success in France. According to Researchscape, approximately 73% searches performed on mobile results in an action, which shows that the number of people using search engine on their mobile is increasing (Rowles 2014, 145). During the same 3-month period, Bing Ads' mobile campaigns of website Y gained a 4-digit amount of earnings, which corresponds to 22,6% ROI. However, there is no guarantee that campaign for other markets works effectively in France mainly because each country has its own traits and behaviors concerning PPC advertising. By the same token, duplicating PC campaigns is considerably risky since every device carries different structure and interface. Large-scale search engines such as Google

and Bing have been trying to provide results which are more optimized for mobile search experience (Rowles 2014, 146). Thus, the need to investigate into how to tailor the campaigns in favor of mobile device is essential. At the beginning of October 2017, the company ran a test campaign on mobile in France which gave a promising ROI of 2,6%. During the trial, there were only a small number of keywords in certain categories uploaded, hence the fresh start for a new test is wholly possible and recommended by the company.

## 2.3 Keyword match type

### 2.3.1 Keyword and its related concepts in search advertising

First of all, the definition of keyword should be stated clearly. According to Oxford Learner's Dictionary (2018), a keyword is either "a word that tells you about the main idea or subject of something", or "a word or phrase that you type on a computer keyboard to give an instruction or to search for information about something." These are the two general definitions of keyword which are universally understood and used. In search advertising, they retain their core meanings. Dodson (2016, 17) defines keyword as a highly relevant and important word or phrase that represents website of one business. It means that a keyword should describe the primary content of what a company wants to advertise. In "Notes on Terminology" section of his book, Jansen (2011, xviii) describes keyword as "a word selected by an advertiser that links a searcher's query to an advertisement".

As stated previously, in search advertising, ads are completely purchased and shown based on keyword, hence keyword plays an utterly crucial part of any PPC campaign. It links the needs of customers with products and services offered by the company, then triggers the ad. The selection of keyword is so important that if it is not handled carefully and skillfully, neither of other factors matters at all – ads, bid amount, metrics and even products themselves. The reason is simple and clear: the searcher cannot see any ad if the keyword does not trigger it. On the technical side, a keyword has to match a query that searcher enters into search engines in a certain way. (Jansen 2011, 31.) In case inappropriate keywords are chosen, irrelevant ads will be shown and advertisers will likely spend money without gaining any profit (Dodson 2016, 62).

**Keyword bidding** is another vital process in paid search. It is a general term indicating the action of buying keywords from search engines. Keyword bid is the maximum amount advertisers willing to pay every time their ad is clicked. It is usually indicated by the term "cost-per-click (CPC)" on search advertising platforms. Generally, advertisers bid against each other on the same keyword and who has higher bid might get his/her ad showed in a desirable position on result pages. **Ad position** in Bing Ads is the position of an ad on

search result pages of Bing, AOL or Yahoo since there are limited spaces on each webpage. It is decided by the ranking of the ad against that of competitors' ad. In practice, there are more factors involving in ad ranking apart from setting a bid amount and put the keyword into an auction. If not, the ad containing highest bid keyword will always be displayed in the first position on result pages, which is against the purpose of search engines. The same with organic listings, search engines' responsibility is to provide results and deliver ads which are suitable for searchers' queries. (Charlesworth 2017, 221.) In order to assign a position to an ad, or simply select the ad from which organization to be shown, besides bid amount, quality score is assigned by advertising platform as another decision-making element.

**Quality score** symbolizes the competitiveness of advertiser's ad based on the relevance of keyword, ad content and landing page (website at which users arrive after clicking an ad) to searcher's query. Quality score is a numeric value starting from 1 to 10, with 10 being the highest. More information on quality score range will be discussed in subchapter 3.2.2 "Optimization methods". Zero "0" is shown only if it has not been calculated at the viewing time. Quality score is still given even if a keyword has not had any impression. A low quality score is a sign that advertiser's ad is performing less effective than that of competitors. It leads to the cutdown in chances the ad is shown and its position on result pages. A high quality score helps advertisers obtain high ad ranking while minimizing cost-per-click (Dodson 2016, 49). Bing Ads' computation of quality score comprises three elements: expected click-through-rate, ad relevance, and landing experience. (Bing Ads Help Center 2018.)

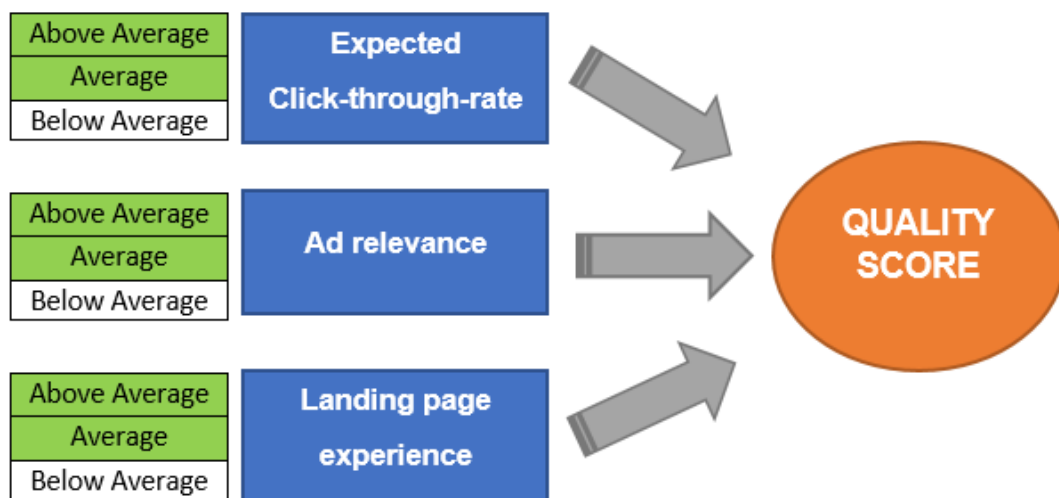


Figure 4. Components of quality score's calculation (Adapted from Bing Ads Help Center 2018).

Expected click-through-rate score reveals the possibility of the ad being clicked and the degree of keyword's competition against other keywords with the same traffic target. A high score indicates that the keyword has high chance to result in a click on the ad. Ad relevance score reflects the level of pertinence between the ad and searcher's query. Lower score equals higher irrelevant ad. Landing page experience score indicates customers' experience of the page they were directed to after clicking the ad. It is weighted based on the number of times searchers quickly leave the ad's landing page after arriving. (Bing Ads Help Center 2018.)

In addition to original bid amount of each keyword, Bing Ads has a feature called **bid adjustment** which helps advertisers maximize the power of targeting using bid value. When it is applied, keyword bid is increased or decreased by a certain percentage depending on chosen target method such as day of the week, time of day, device, location, and demographics. The range is between -90% and +900%, with 1% increment. The negative value of -100% is available for device targeting, which will be mentioned in subchapter 3.1.1 "Campaign setup". A combination of different targeting approaches can be used. For instance, after setting geographical bid adjustment, ads are available to all people within a location. However, advertisers can show the ads only to a specific group of customers in that place by placing bid adjustment on gender and age. With this function, marketers are given greater control over the ad's exposure to potential customers who meet specific targeting criteria. (Bing Ads Help Center 2018.)

### **2.3.2 Keyword match type – the unnoticed power of keyword**

There are many elements when it comes to technically optimizing a search advertising campaign. In the thesis, the author chooses an interesting yet uncommon aspect to dive deep into – keyword match type. Bing Ads Help Center (2018) defines keyword match type as "a function to decide how closely a search term must match advertiser's keyword." Briefly, keywords are chosen by advertisers, search terms are entered by searchers, and match type is a "tool" used by search engine to determine how well they match with each other in terms of meaning.

There are currently five match types available on Bing Ads platform: Broad, Modified Broad, Phrase, Exact and Negative. Amongst them, Negative is the only match type with keywords that do not trigger ad (Bing Ads Help Center 2018). In another word, it prevents ads to be shown for certain search terms (Dodson 2016, 66). Therefore, based on the need of the company, Negative match type is excluded from the project. Details of the other four match types are shown in the table below with examples. All definitions and

syntax are quoted from Bing Ads Help Center in order to provide readers with the most authentic information. Examples are given by the author.

Table 2. Keyword match types definitions and examples (Bing Ads Help Center 2018).

Keyword match type	Search terms that trigger the ads	Syntax	Keyword example	Search terms examples
Broad	contain any word in advertisers' keyword or related concepts	keyword	blue men shirt	Turquoise t-shirt, sweater men, zara pants blue, retro indigo outfits
Modified Broad	contain the modified word(s) or any close variations, in any order.	+keyword	+blue men +shirt	Buy blue shirt, turquoise top, boy shirt indigo, zara polo blue
Phrase	contain all of the words in keyword (or any close variations), in the same order - even if other words are present in that query.	"keyword"	"blue men shirt"	buy blue men top, indigo men shirt zara, turquoise men shirt new
Exact	match the keyword exactly, including some close variations.	[keyword]	[blue men shirt]	blue men shirt, indigo men shirt, blue men top

According to Bing Ads Help Center (2018), the term "close variations" includes these following word variants: plurals, stemming, word blending and spitting, abbreviations, acronyms, misspellings, accents, stop/function words, punctuation and common spelling variations.

**Broad**, as the name indicated, is the broadest match type. This is the default option when keywords are uploaded to the platform, it does not require any special character to go with the word. When keywords are set as Broad, ads are triggered by search terms which include any word in those keywords or related concepts, in any order, regardless of relevance (Dodson 2016, 66). For example, with the keyword "blue men shirt", search terms like "turquoise shirt", "men t-shirt" or "buy blue shirt" can trigger the ads, which is what advertisers want since they are correctly targeted. However, ads can also be shown for queries such as "blue blouse", "pink sweater", and "men jeans", while they are completely irrelevant to what is being advertised. Those queries are eligible because they are under the spectrum of "related concepts".

According to Bing Ads Help Center, using Broad match type can help marketers save time doing keyword research since close variations and related terms are automatically counted. This is also the reason advertisers get the most traffic with this match type: the more search terms their keywords can match, the more time their ads will possibly be shown. However, the slight chance of people clicking on those ads is the main drawback,

since some of them can be totally irrelevant as demonstrated in examples above. In the worst-case scenario, if those random ads are accidentally clicked, advertisers' money is wasted. One more thing needs to be noticed is the quality score. It is badly affected as advertisers are not relevant to the audience they are targeting (Dodson 2016, 66).

**Modified Broad** is the newest one of all match types. It still has a wide targeting but allows advertisers to decide which words within the keyword they think more important, by adding "+" sign in front of them. Search terms are eligible to trigger their ads only if they contain, in any order, those words (or their close variations) within advertisers' keyword. For instance, the keyword "blue men shirt" can be set as Modified Broad in different forms depending on which words advertisers want to highlight: "+blue +men +shirt", "+blue men +shirt", "blue +men +shirt", and so on. If advertiser bids on the keyword "+blue men +shirt", ads are shown only when search term contains both "blue" and "shirt" or their close variants, in any order. A few examples are "blue blouse Helsinki", "woman shirt turquoise", "indigo jersey".

Modified Broad is considered to be the best match type to start with when launching a new PPC campaign (Dodson 2016, 66). The main reason is that it inherits an expansive targeting trait from Broad match whilst gives users more control over their keywords. Nevertheless, there is a widespread question from marketers when it comes to employing this match type: the necessity for adding "+" sign to each word in a keyword. During SMX Advanced Conference in 2015, journalist Frederick Vallaey who used to work for Google addressed this concern. In his opinion, users should not take on that practice because it can dilute the capability of Modified Broad. (Search Engine Land 2015.) A store who sells BMW cars and spare parts was taken as a simple example: instead of "+BMW +cars", bidding on the keyword "+BMW cars" would bring up more opportunities for them. By eliminating "+" sign in front of the word "car", their ads can be shown when someone searches for BMW types, BMW window or BMW fuel gauge.

**Phrase** match type is a more defined version of Modified Broad. With this match type, keyword is put inside quotation marks and a search query can trigger ads only if it includes all words in a keyword (or their close variations) in the exact order, and other additional terms before or after that keyword (PPC Hero 2018). Keyword is placed inside quotation marks to indicate that the order of the word has to be kept untouched. For example, if keyword "blue men shirt" is bid on Phrase match, ads can be shown by these search terms "buy indigo men shirt", "trendy blue boy t-shirt Helsinki", "turquoise guy jersey", and so on. However, search queries such as "men shirt blue", "blue trendy men shirt" or "blue shirt" are not eligible to trigger the ads.

There has been a raising question between advertisers whether Phrase match type is still worth using while Modified Broad has almost similar feature and has brought significant benefit. The outstanding difference between them is Phrase requires a keyword appears in a search term in the exact same word order, whereas this rule does not apply on Modified Broad. Even though most of the times it may not make any significant distinction in the intent of the search term, there are certain cases where it is applicable. For instance, companies who sell books about cars want to bid on keyword “car book” only because “book car” is totally irrelevant for them. However, the other way around is applicable for car hiring companies: “book car” is their appropriate keyword. Therefore, the only option is to use Phrase match type in this case.

**Exact**, as written in its name, is the most precise match type. Ads are only triggered if a search term exactly matches a keyword, without anything extra. In order to use Exact match, keyword is placed inside square brackets (Dodson 2016, 65). However, Bing Ads (2018) has included “minor variation of the keywords” in this match type also, which caused quite a confusion for advertisers since it no longer corresponds to its name. As an Account Manager at Hanapin Marketing, Saxman (2017) points out that this change can actually benefit the marketers in two ways. First, with the same search intent, ads are eligible to be shown more and additional clicks are driven in. Second, time spending on building up and management of keyword close variations is trimmed down. For instance, if the keyword “blue men shirt” is set as Exact match, search queries such as “blue men shirt”, “indigo men shirt” and “blue men top” are eligible to trigger the ads. Due to its strict requirement for search terms, the utilization of Exact match is recommended for advertisers whose ads are highly targeted to a specific group of customers (Bing Ads 2018).

Bing Ads has made recommendations on choosing keyword match types based on practices from its users. First of all, advertising goals and target audience should be in contemplation. To ensure the full coverage of keyword list, running search query report frequently is highly suggested. The management of keyword list with corresponding bids helps advertisers keep track of their budget and spending. Ads copies are worth paying close attention to also, since more precise keyword match type requires higher bespoke ad content. As stated by Bing Ads, when the same keyword is bid on both Exact and Broad match, Exact match will take priority and trigger the ad. For example, with the keyword “blue men shirt”, if it is bid on Exact and Broad match, a search term “blue men shirt” will trigger the ad containing Exact match one. However, as mentioned in subchapter 2.3.1, the act of choosing an ad to display also depends on other elements such as current bid and quality score of the keyword. It leads to the fact that the ad with Broad match

type keyword can be trigger instead of Exact one in the above example. Therefore, in order to identify the most suitable keyword match types for website Y, the author set up and ran real campaigns containing similar keywords and bid amounts.

## 2.4 Performance metrics

One of the crucial parts of running a PPC campaign is to measure its performance. According to the American Marketing Association (2018), metrics is “a system of measures that helps to quantify particular characteristics.” Therefore, a performance metric is a measure of performance. Pauwels (2014, 33) defines key performance indicators (KPIs) as important business performance metrics. It indicates the key performance figures of a business activity. Selecting the right important metrics is important to reach company objectives and avoid negative surprises. It is suggested that there are two stages in getting the right metrics: “Discovery and Confirmation”. Discovery means collecting general and promising metrics. Every company should start with metrics that are currently being used and crucial to their business decisions. (Pauwels 2014, 83.) Having been an intern in Company X, the author generated a list of potential performance metrics for the campaigns at the exploratory stage. Bing Ads provides an extensive list of different metrics to measure campaign performance. It is featured in Microsoft Docs, the primary page for all technical documents, tutorials and instructions for Microsoft’s online products as well as services. The table below shows some of the most prevalent performance statistics with their definitions given by Microsoft in their user guideline for Bing Ads’ report attributes and performance statistics.

Table 3. Common performance statistics of PPC campaign (Microsoft Docs 2018).

Statistics	Definition
Impressions	The amount of times an ad is shown on search engine results pages. It is required to gain any click or conversion.
Clicks	The number of times an ad was clicked by users on search result pages or websites within Bing's search network. There are other kind of clicks which caused by robots or test servers.
Spend	The cost per click (CPC) summed for each click.
Current Max CPC	The highest bid the advertisers willing to pay for each click at the time the report is generated.
CTR	It is calculated by taking the number of times an ad was click (clicks) and dividing by the number of times the ad was displayed (impressions).

Conversions	A conversion is the action the advertisers want customer to take after clicking their ads. For example, email subscription or products purchase.
Conversion Rate	Its formula is the numbers of conversions divided by the number of clicks the ad received.
Revenue	Revenue from conversions is voluntarily submitted to Bing Ads by advertisers.

Combined with the description of keyword match types, a general rule when selecting keyword match types can be inferred: If the match type is more precise, it tends to have higher click-through-rate and conversion rate, while its impression volume is likely to be lower. For this reason, the key of maximizing ROI for a search advertising campaign is to achieve the balance between conversions and impressions. (Bing Ads Help Center 2018.)

In the next step, "Confirmation", the statistics above are filtered by tests and practical cases. Based on the characteristics of the campaigns or projects, those metrics will be narrowed down to the most important to performance ones. After the second interview with company representative described in chapter 3, metrics which will be observed and presented are chosen.

### 3 Planning and implementation of the project

In project management of the thesis, there are four primary stages: campaign preparation (PT1 and PT2), campaign implementation (PT3), data collection & presentation (PT4), and project evaluation (PT5). For each stage, the suitable method has been chosen after taking into accounts the topic (Figure 5).

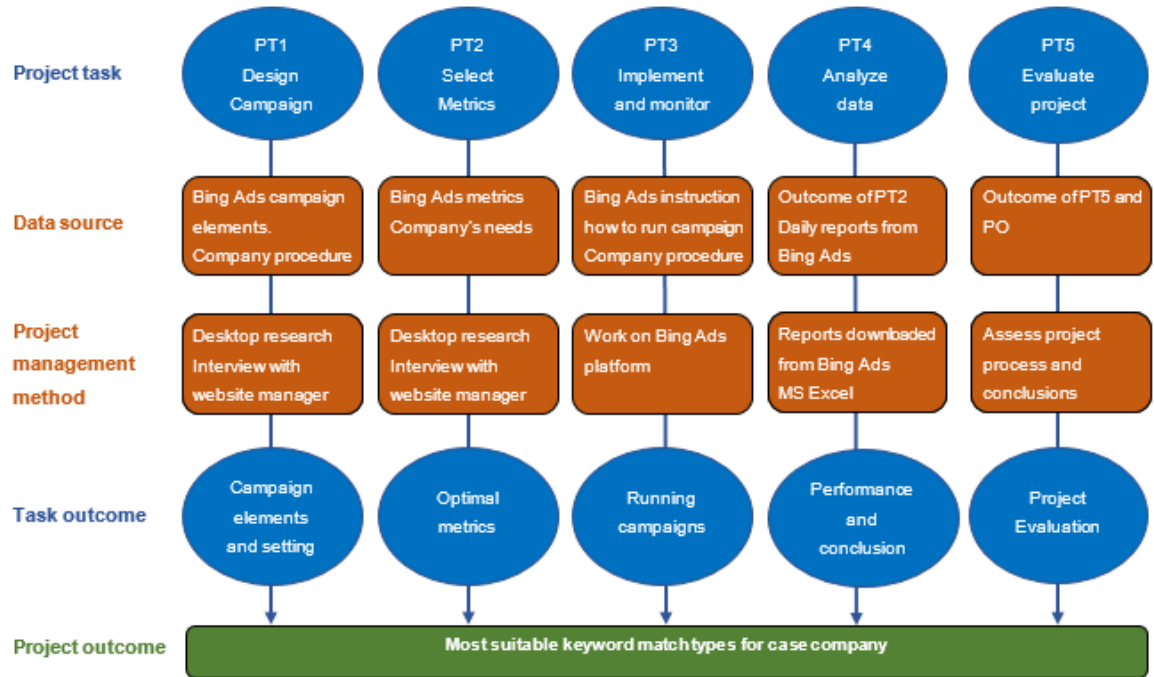


Figure 5. Project management methods.

A quantitative research method in form of face-to-face interview with company representative is employed for campaign planning process. The goals were to discuss campaigns setup and select the optimal performance metrics for this project from the list provided in theory section. Campaign implementation and optimization are carried out completely on Bing Ads platform. In the last step, data is collected through campaign's report and illustrated using graphics tool in Microsoft Excel.

In this chapter, the first and second stage (PT1, PT2, and PT3) of the project are demonstrated and elaborated. The first stage is to interview company representative of which the results are the selections of campaign design and performance metrics. The second stage is campaign implementation with monitoring and optimizing practices.

### **3.1 Interviews with Company X representative**

With the aim of giving rational and pragmatic recommendation for Company X, the author chose interview as a method to gather necessary information for the project.

Interview is deemed to be one of the most important techniques concerning collecting qualitative data for research and business (Myers 2013, 119). Through the interview process, primary data is collected, which has an important effect on the success of the project. The reason is that internal or confidential data can be gathered directly for the advantages and characteristics of the campaigns. Moreover, through face-to-face meeting, any issue concerning confidentiality of the thesis itself can be brought up and discussed clearly. Semi-structured type of interview was employed in this case. A list of questions was formulated beforehand by the author but there was not any restriction on other concerns emerging during the interview. (Myers 2013, 122.)

The author actively set up two interviews with Miriam Graue, one of the account managers of Company X who had been in charge of search advertising campaigns for website Y. Miriam is referred as company representative, website Y manager or interviewee throughout the thesis. The interviews were arranged on company's premises with a relaxing and comfortable atmosphere. The first one was conducted on Tuesday 21 November 2017 and lasted for roughly an hour. Its focus was on the design of campaigns covering both content and structure. After the brief preparation for the campaigns based on results of the first meeting, the second interview was carried out on Tuesday 5 December 2017 and finished after approximately half an hour. The purpose of it was to select suitable metrics to observe the campaigns. Throughout both interviews, all the questions were discussed and answered carefully. The author also received a lot of valuable advice and support from the interviewee. Specific outcomes of the interviews are precisely presented in the two following subchapters. The list of questions used in both interviews is attached at the end of the thesis (appendix 1).

#### **3.1.1 Campaign setup**

In this subchapter, the outcome of the first interview with company's representative is described in detail. As mentioned previously, the purpose of this meeting was to discuss the composition and layout of campaigns for the project. Before getting into details of the campaigns, a brief introduction to the structure of Bing Ads is needed.

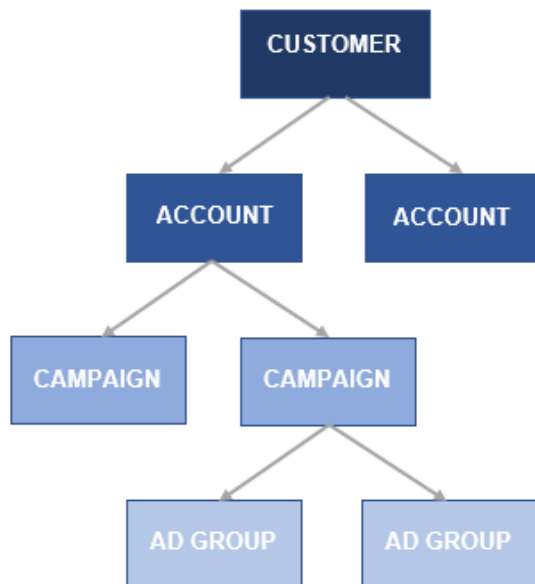


Figure 6. Bing Ads' Structure (Adapted from Bing Ads Help Center 2018)

Figure 6 above illustrates Bing Ads' hierarchy. "Customer" is the one who creates Bing Ads' accounts. In this case, it is Company X. Accounts contain information about payment method, payment settings (prepay or postpay), currency, time zone, and additional users. One account can have one or multiple campaigns. Each campaign can be assigned its own or have a shared budget. Campaigns include one or numerous ad groups. Budget is divided among all the ad groups in one campaign. Ad groups are made of one or many related ads and their connected keywords.

Four mobile accounts were newly created for French market, which are tallied with four different match types examined in this project. The primary idea is to compare the performance of keyword match types in indistinguishable conditions. Therefore, apart from account's name and match type of the keywords, all other components of these accounts are wholly identical. Campaigns for this project were copied from PC account and have their name and target device changed to mobile. Name of each campaign in the project reflects its target market, language, keyword category and keyword match type. As mentioned in chapter 2.3, Bing Ads provides "Bid Adjustment" option for device including three devices: desktop computer (PC), mobile, and table. The bid adjustment -100% indicating a device is wholly excluded from a campaign. All campaigns of the project have desktop and tablet devices omitted completely. Other campaign settings remain the same with PC account. They include budget, language, location, keyword, bid strategy, and ad extensions.

Budget is the total amount advertisers want to spend on a campaign per day and when it is used up, ads will not be displayed until the next day. There are four budget types depending on usage. If one budget is assigned to two or more campaigns, it is called "shared budget". Otherwise, each campaign has its own "daily budget". "Standard budget" option is set to deliver your ads throughout the whole day. On the other hand, ads are shown with maximum possibility until the budget is drained out if "accelerated budget" is selected. Daily budget only acts as a goal, thus actual spend of advertisers can be lower or higher. The reason is that a calculation of monthly budget is performed by Bing Ads and then the real budget is counted for a whole month. In this way, daily budget ensures an even distribution of budget over a full month. The modification of budget amount or type and is possible at any time. For the project, daily standard budget is preferred since campaigns are monitored every day and adjustments will be made when necessary.

Since tested market of the project is France, ad language of all campaigns is set as French and location is entire France. Regarding customers target, "people in your target location" alternative is employed which allows only people living in France to see the ads.

Each account has around 500,000 keywords taken from four different categories of Company X's keyword database. They are divided into four campaigns per account and approximately twenty ad groups per campaign. The division relies on the association between keywords, how closely connected they are with each other in terms of meaning. Within each ad group, there are a set of three expanded text ads. They consist of ad title (headline of the ad), ad text (description of what is advertised), display URL (a concise form of landing page's URL with two customized URL paths) and final URL (full form of landing page's URL). The next important setting is bid strategy. It is the plan how advertisers want to manage bid amount on campaign, ad group or keyword level. In this project, bid is controlled manually on keyword level. This strategy gives a full control over spending and space for optimization because each keyword bid is set and adjusted individually based on its performance.

One of the most powerful features to boost the effectiveness of an ad are ad extensions. Ad extensions promote aptly additional information about advertiser's business which can be added to the ads. A few of options, with their name given in brackets, available on Bing Ads are an address (location extension), website links (sitelink extensions), highlights of a business (callout extensions), and price of a product or service (price extension) (Bing Ads Help Center 2018). The outstanding advantage of using ad extensions is the free-of-charge boost in the visibility of an ad. There is also a high change of increase in CTR and conversions because customer targeting is greatly improved thanks to these additional

pieces of information. For campaigns of this project, the author utilized sitelink extensions and callout extension, as complied with Company X procedures.

Sitelink extensions contain extra links (usually four) which take customers straight to certain pages on the website. Below each extension are two short descriptions of the link. Only the ad at the first position of result page has these descriptive texts displayed. Figure 7 below shows an example of sitelink extensions of an ad from Bing's first result page for the search query "samsung galaxy s9". Advertisers can use sitelink extensions to promote specific products or services and provide customers with what they are searching for particularly. (Bing Ads Help Center 2018.)

The image shows a Bing search result for "samsung galaxy s9". The main ad is "Samsung tuotteet | power.fi" with a URL "www.power.fi/Samsung". Below the ad are four sitelink extensions arranged in a 2x2 grid, enclosed in a red border. The extensions are:

<b>Vinkit &amp; Oppaat</b> Powerin artikkeleista löydät vinkit, oppaat & uusimmat trendit.	<b>Myymälät</b> Löydä lähin Power myymälä. Sama halpa hinta netissä ja myymälöissä!
<b>Power Tarjousliite</b> Tutustu tuoreimpiin tarjouksiimme. Nyt kasoittain löytöjä edullisesti!	<b>Tilaa Power uutiskirje</b> Tilaa uutiskirjeemme niin voit voittaa 500€ Power-lahjakortin!

Figure 7. Example of sitelink extensions of an ad shown on Bing for the search term "samsung galaxy s9" (Bing search result on 7 May 2018)

Callout extension is an extra line with a couple of texts which emphasize the most popular products, services of the website, or the strength of the business itself. It is displayed in a variety of formats and cannot be clicked. The texts cannot be the same with contents of the ad. An example of a callout extension of an ad displayed on the first result page of Bing for the search "samsung galaxy s9" is illustrated in figure 8. Bing's callout extension is used to build trust and encourage customers to click the ad due to tempting products or benefits. (Bing Ads Help Center 2018.)

## Samsung tuotteet | power.fi

Ad · [www.power.fi/Samsung](http://www.power.fi/Samsung) ▾

Edullisesti Power verkkokaupasta. Valtava valikoima, halvat hinnat!

Click & Pick · Aina halvat hinnat · Kickstart-tarjoukset

📍 Itäkatu 1-5, Helsinki · [Directions](#)

### Vinkit & Oppaat

Powerin artikkeleista löydät vinkit, oppaat & uusimmat trendit.

### Power Tarjousliite

Tutustu tuoreimpiin tarjouksiimme. Nyt kasoittain löytöjä edullisesti!

### Myymälät

Löydä lähin Power myymälä. Sama halpa hinta netissä ja myymälöissä!

### Tilaa Power uutiskirje

Tilaa uutiskirjeemme niin voit voittaa 500€ Power-lahjakortin!

Figure 8. Example of callout extension of an ad shown on Bing for the search term “samsung galaxy s9” (Bing search result on 7 May 2018)

### 3.1.2 Selected optimal metrics

After careful consideration and discussion during the second interview, important performance metrics were selected and agreed by both parties. Based on the proposal list provided by the author, the following metrics will be recorded and studied in order to make recommendations: volume (costs and clicks), click-through-rate, conversion rate, profit and return on investment (ROI).

According to campaign running process of Company X, “costs” and “clicks” are classified into volume group due to the fact that there is a usual positive correlation between them. Clicks is the total amount of all kinds of clicks the ads received during the campaign running period. Clicks is segmented into three categories: standard-quality, low-quality and invalid. Both standard and low-quality clicks come from searchers, their difference is the possibility of the click resulting in conversions for advertisers. As defined by Bing Ads, the origins of invalid clicks are “user error, search engine robots, spiders, test servers, questionable sources, or fraudulent activity.” Nevertheless, standard-quality clicks are the only ones that advertisers need to pay for. (Bing Ads 2018.) Costs is the total amount of money spent on a campaign or the summed cost of all standard-quality clicks a campaign received. Thus, its calculation is cost-per-click (CPC or “spend” as in Bing Ads campaign report) multiplied by the number of standard-quality clicks. Together clicks and costs are used to measure the size of a campaign in terms of quantity. The reason they are taken into consideration is that if a campaign has low volume, the analysis of other metrics bears a high chance of being inapplicable to draw conclusion.

Click-through-rate (CTR) indicates the ratio of the number of times the ads are clicked to the number of times they are displayed. Its formula is clicks divided by impressions, then

multiplied by 100. According to the definition, CTR gauges the portion of searchers who click an ad to go to the landing page, but does not involve those who visit the website themselves after seeing that ad. Thus, CTR is considered a tool to measure the real-time reaction to an ad, not the comprehensive response to it. (Marketing Terms 2018.) CTR is crucial by virtue of its direct effect on quality score. A high CTR leads to a high quality score since it implies the efficiency and relevance of the ads and keywords. A high quality score means great possibility of getting a high ad position with a low CPC.

Conversions are the final actions advertisers want customers to take after arriving at the landing page by clicking an ad. These actions include a wide range of activities, for instance, newsletter subscriptions, membership registration, files/program download, and product/service purchase. The exact conversion depends on business's intention of creating the ad. The metric showing the ratio of conversions to clicks is called conversion rate (CR). Higher CR bears a greater possibility of success of a PPC campaign since every penny spent on advertising platform converts a searcher into a customer for the business. However, if the cost of a click is even higher than the total profit from a conversion action acquired by that click, there is no guarantee for greater earnings from higher CR. For that reason, the inclusion of CR in the list of chosen metrics is crucial to benchmark the benefit of the ads against Company X's desired goals.

Last but not least, profit is the most concerned element for almost every business. All activities of Company X share the common goal of maximizing profit. It is the subtraction of cost from revenue. Bing Ads calculates the total revenue based on revenue for each conversion given by advertisers, and the entire numbers of conversions. The final profit is reckoned by Company X in its report. Moreover, return on investment (ROI) is taken into consideration as it shows the ratio of profit to investment (in this case it is the cost). Its formula is profit divided by cost then multiplied by 100. ROI is used as a rudimentary mean to assess and compare the profitability of different investments. Based on this figure, the decision on reduction or increase in spending on certain campaigns can be made.

### **3.2 Campaign implementation & optimization**

When all necessary information was gathered and campaigns were fully constructed, the second stage of implementing and monitoring these campaigns was initiated. Bing Ads gives thorough instruction on how to get campaigns up and running on the platform. During the running period, they were monitored on daily basis and optimized by both the author and Website Y manager. Optimization had to be done simultaneously for all 4 campaigns in order not to distort final results. It was carried out using company's strategies and methods.

### 3.2.1 Monitoring campaigns on Bing Ads platform

After having been fully set up, all campaigns were enabled simultaneously on 19 December 2017. At that point, each campaign, ad, and keyword was assigned a delivery status which indicates their operating status, whether they are qualified to be activated. Generally, every ad and keyword must go through an editorial review against Bing Ads policies concerning allowed content in an ad. Bing Ads provides an entire website layout (<https://advertise.bingads.microsoft.com/en-us/resources/policies>) with a thorough display of all fields covered by the policies such as ad content & style, intellectual property, restricted and disallowed content, and so on. (Bing Ads Help Center 2018.) During the process, delivery status is marked as “pending editorial review” and none of the ads is running. In the project, after one business day, the ads and keywords passed the review and were eligible to be shown. Thus, the official start of data collection was on 20 December 2017. Throughout project time span of 42 days, all accounts and campaigns were running daily without pause or inactivation. The last recorded data was on 30 January 2018.

In order to have a complete supervision of campaigns, the familiarity with platform interface is highly needed. The author will report on some of the sections on Bing Ads interface (Figure 9) which are the most helpful for the project. On top of the main page, “Account summary” and “Report” are the tabs with the highest usage. “Account summary” is extremely useful in case of multiple accounts management. It lists all accounts together with their performance and budget. (Bing Ads Help Center 2018.) In performance part, each column shows different metrics and advertisers can filter to choose which column they want to monitor. In the top-right corner, date range drop box allows data to be viewed in different time frames, for example, yesterday, last 7 days, last month, or customizable date. Campaign page can be accessed by clicking account name on the performance tab. On this page, with the same metrics filters and date range features, campaign performance report can be directly downloaded for a quick check and minor adjustments. The main tab for gathering reports is “Report”, which will be described specifically in subchapter 4.1 “Campaign report”.

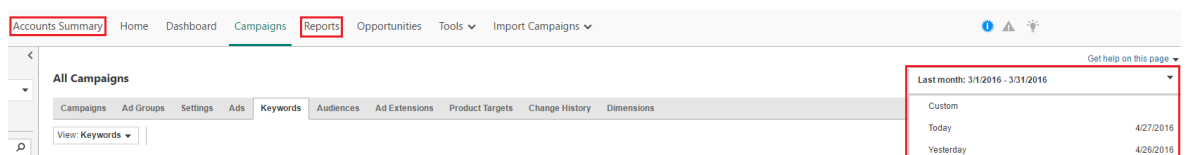


Figure 9. Example of Bing Ads platform interface

Another handy field on the main page is the left navigation panel. Within the panel, “Selected account” drop box contains all accounts of a customer. After any account being

clicked, its campaigns and ad groups are shown under “All campaigns” part. “Bulk Operation” is the most advantageous and practical feature, especially for the management of numerous accounts with a mighty amount of campaign elements. With a bulk file, advertisers can save time by making adjustments or uploading contents across campaigns and accounts all at once. Changing campaign status, budget, keyword bids, or uploading new campaigns, ads, and keywords, are few of possible functions of bulk operation.

In addition to features within the platform, Bing Ads also provides a variety of tools to help advertisers build and control their campaigns. Bing Ads Editor appears to be the most prominent one and has been considerably utilized by Company X and the author. As briefly mentioned in chapter 2, Bing Ads Editor is an application for desktop to facilitate search advertising campaign management both online and offline. It has all important and frequently used functions of Bing Ads, namely bulk edit tool, various accounts management, direct import from Google Adwords. The synchronization of data from platform into the application allows users to make necessary and correct modifications or optimization. What makes it extremely useful is the function to preview any revision before uploading to platform. By checking the changes, unwanted mistakes and pitfalls can be noticed and eliminated. Moreover, the editor allows the copy and paste of any elements (keywords, ads, ad groups, and so on), even a whole campaign between different accounts. (Bing Ads Help Center 2018.) This function played an important role in duplicating desktop campaigns for newly added mobile accounts of the project. Through practical experience, website Y manager and the author has a high opinion of the editor thanks to its fast-loading interface, user-friendly layout and ability to work offline.

### **3.2.2 Optimization methods**

In search advertising, the continuous assessment of ads and keywords performance is ultimately crucial. It has a direct effect on campaign’s improvement and accomplishment. The process is defined by Bing Ads (2018) as “campaign optimization”. There is a wide variety of methods aiming at improving different performance metrics but their common ground is the adjustment of ads, keywords, keyword bids, and landing page. For the project, getting the ads to a favorable average position was selected as the goal for optimization. Bing Ads supports advertisers with a few suggestions on how to improve the average position of an ad. These tips include writing pertinent ad content to boost the effectiveness of an ad, raising CTR by increasing keyword bids or using bid adjustments with targeting, and checking keywords and landing page to increase quality score. Company X and the author decided to concentrate on keywords and keyword bids. The preferred methods are manual modification of keyword bids and usage of automated rules. Based on the campaign report run and downloaded every day, optimization was carried out on daily basis.

All campaigns of the project must be optimized simultaneously to ensure that conclusions are drawn from correct data for each match type.

The first approach is the manual adjustment of keyword bids. As mentioned in subchapter 2.3.1, keyword bid is the highest amount of money advertisers ready to pay if someone clicks their ad. In Bing Ads, there are two alternatives for keyword bidding: custom or default bidding. With default option, a bid is entered for the whole ad group, whereas it is set for individual keyword in custom option. (Bing Ads Help 2018.) Campaigns of the projects utilized custom bidding due to the fact that it allows more detailed control over the profitability of each keyword. On Bing Ads platform, keyword bid can be adjusted by editing the “Bid” column in “Keyword” tab. The adjustment is made either by a certain amount or by percentage. For the project, the criteria are current ad’s average position and keyword’s quality score. If a keyword has a low quality score and the present position of the ad containing that keyword is higher than the preferred one, its bid is decreased. On the contrary, keyword bid is increased when the quality score is high and the average position is lower than the favorable one. Simple as it may sound, the whole process of changing keyword bid requires a great amount of time and effort. Decisions are made based on a meticulous analysis of the performance of that specific keyword, ad group or campaign within a definite time frame, for example, yesterday, last 7 days or last 2 weeks. There are two main sources of performance statistics: Bing Ads platform and company own report.

The second optimization method is the utilization of automated rules. With time and criteria set by advertisers, automated rules automatically enable or pause campaign and its elements, supervise their performance, and adjust keyword bids. Especially, there is notification option with which email can be sent to rules’ manager whenever changes are made or only if any error emerges. These abilities offer valuable time saving, flexibility and more campaign’s efficiency overall.

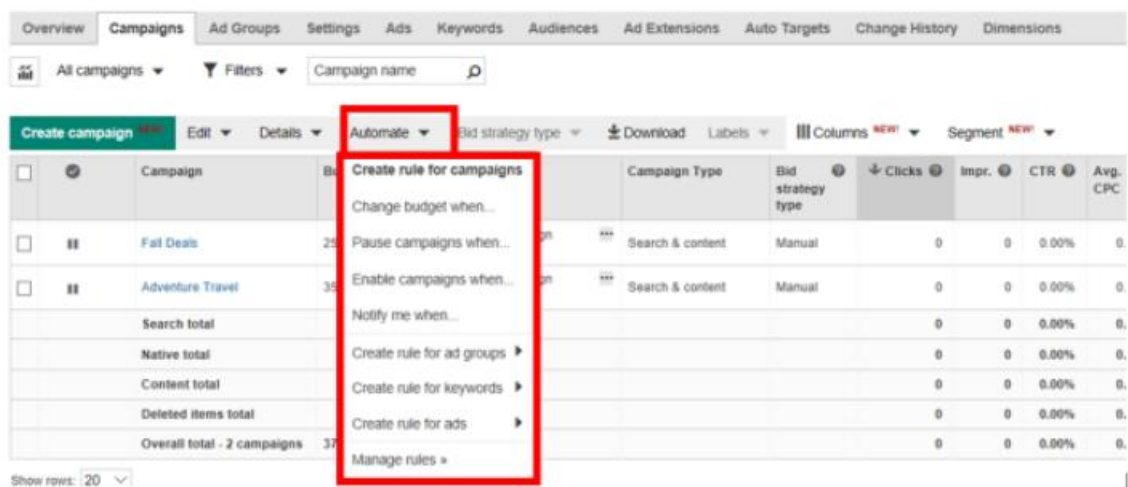


Figure 10. Example of Automate section within Campaigns tab (Bing Ads 2018).

In order to set up automated rules, advertisers simply need to click “Automate” field in any tab: Campaigns, Ad Groups, Keywords, and so on (Figure 10). There is a vast array of possible rules which can be automated depending on criteria and scheduled time. Bing Ads (2018) also gives out its own examples like “start and stop your campaigns for special events, such as New Year’s Day”, “avoid letting your budget stop your best performing campaigns”, “keep your ads on the first page”, and “avoid costs on poor performing keywords or ads”.

For the project, there are two set of automated rules: enable/pause keywords based on their quality score and change keyword bids based on their ads’ average position. In the first set, quality score is used as the criterion because it shows the competitiveness of an ad and the relevance of a keyword to a search query. A high quality score enhances chances of the ad to be displayed when the keyword is matched. Bing Ads ranks keyword’s quality score from 1 to 10, with 1-5 being “underperforming”, 6 being “competitive” and 7-10 being “very competitive”. Detailed descriptions of quality score values provided by Bing Ads are attached at the end of the thesis in appendix 2. Therefore, the specific criteria for the rules are “enable keywords which have quality score higher than 5” and “pause keywords which have quality score higher than 0 and lower than 6”. They were run daily at around 1 AM to ensure only well-performing keywords are activated. Any optimization method utilizing quality score needed to be carried out every day. The reason is that daily changes of its elements lead to the constant update of quality score. Additionally, quality score is influenced by rivals’ optimization practices which make their ads become more competitive.

In the second set of rules, the criterion is average position of the ad. Similar to the first optimization approach, bid of a keyword is enhanced when the current average position is lower than the desired one. However, it is simpler due to the fact that quality score is not considered in this case. The reason lies in the degree of automated rules’ effect. The more fine-tuning the criteria, the less extensive the results of the rules. Hence, the principal idea is to take advantage of automated rules to carry out optimization on large scale and across campaigns. All changes made to keyword bids, including automated rules and bid adjustments based on location or demographics, work independently of each other. When keyword bid meets criteria of these two methods, both changes are applied. Thus, it is ultimately important to be aware of all the settings and rules before manually adjust any keyword bid on the platform.

## **4 Collection and presentation of campaign data**

The next stage of the project is to collect and demonstrate data of the campaigns. Bing Ads gives users a lot of reports featuring different statistics for a variety of purposes. For the objective of the project, campaign performance report is downloaded daily with performance metrics or KPIs which have been agreed with the company. With daily reports, a final report containing all data is generated using company's template. The performance of each campaign is presented as an aggregate of 42 days.

### **4.1 Campaign report**

Once the campaigns are up and running, the next crucial step is to generate reports to assess campaign performance. The function of reporting is to track all statistics with metrics or KPIs determined by advertisers. The use of reports assists users in making appropriate decisions on budget, settings and optimization methods. (Bing Ads 2018.) Two kinds of report were used in the project: campaign performance report provided by Bing Ads and report generated from Company X's template.

Bing Ads offers different report types, with around thirty reports in total, tailored to the needs of advertisers, for instance, Audience Network, Budget, Performance, and Targeting. Customized reports are also available through Report Request Service (Bing Ads Help Center 2018). Within every type, there are different reports, each one generates data from different aspects or at different levels. Performance reports are one of the most vital ones for Company X. They contain overall information about the cost and effectiveness of ads and keywords for a certain period of time. A few performance metrics which appear in almost any report are impressions, clicks, and conversions. The specific report to use is prominently defined by different levels of Bing Ads' structure. Account report has the highest level of data aggregation, whilst the aggregation of keyword report is the lowest one. The performance report of account and campaign is used to optimize budget as it includes the total amount of clicks and spending. The keyword and ad performance report help advertisers to point out ads and keywords which are performing badly according to statistics such as quality score, average position, or CTR. (Microsoft Docs 2018.) For the project, the campaign performance and customized report were selected.

The core function of campaign report is to monitor the performance and attribute of each campaign through different statistics. Additionally, through this report, any account or campaign issue can be identified and sorted quickly. The main section for report management on Bing Ads platform is Reports tab.

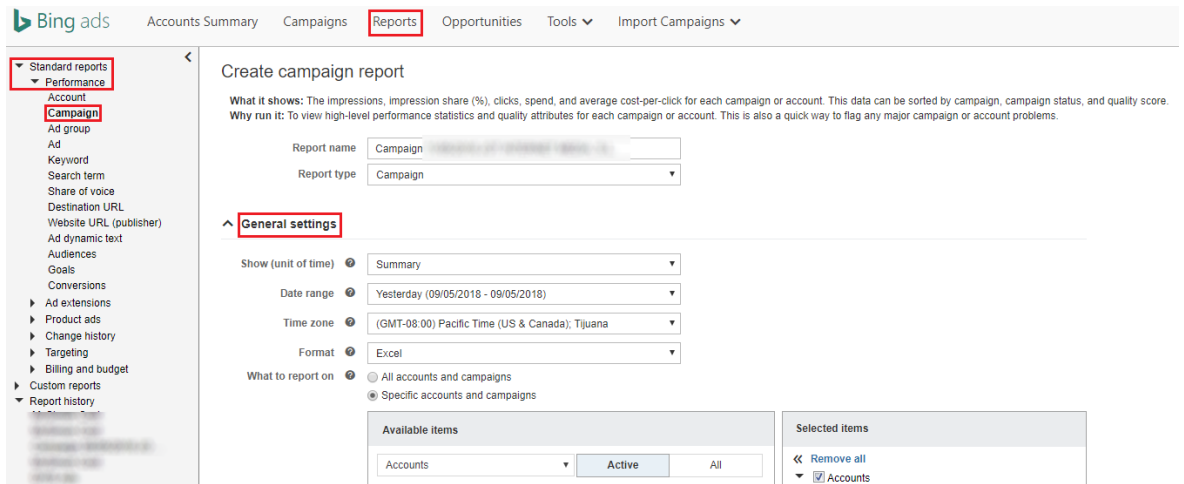


Figure 11. Report tab's interface on Bing Ads platform, "General settings" section (Bing Ads 2018)

On the Report tab, all available reports are listed under "Standard reports" field on the left panel, as shown in figure 11 above. When a report is chosen from the list, each field of different sections must be completed. Daily campaign report used in the project had the following elements: In "General settings" section (Figure 11), "Date range" is yesterday, "Unit of time" is summary (each row is a total data of a campaign within that data range), "Format" is Excel. Under "What to report on" section, only four accounts of the project needed to be chosen. The report contained two sets of columns, "Attributes" and "Performance", which are in "Choose your column" section (Figure 12). The necessary attributes were date, account, and campaign. The selected performance metrics were impressions, spend, conversion, and revenue. This report was run daily to record precise data as well as optimize the campaigns if necessary.

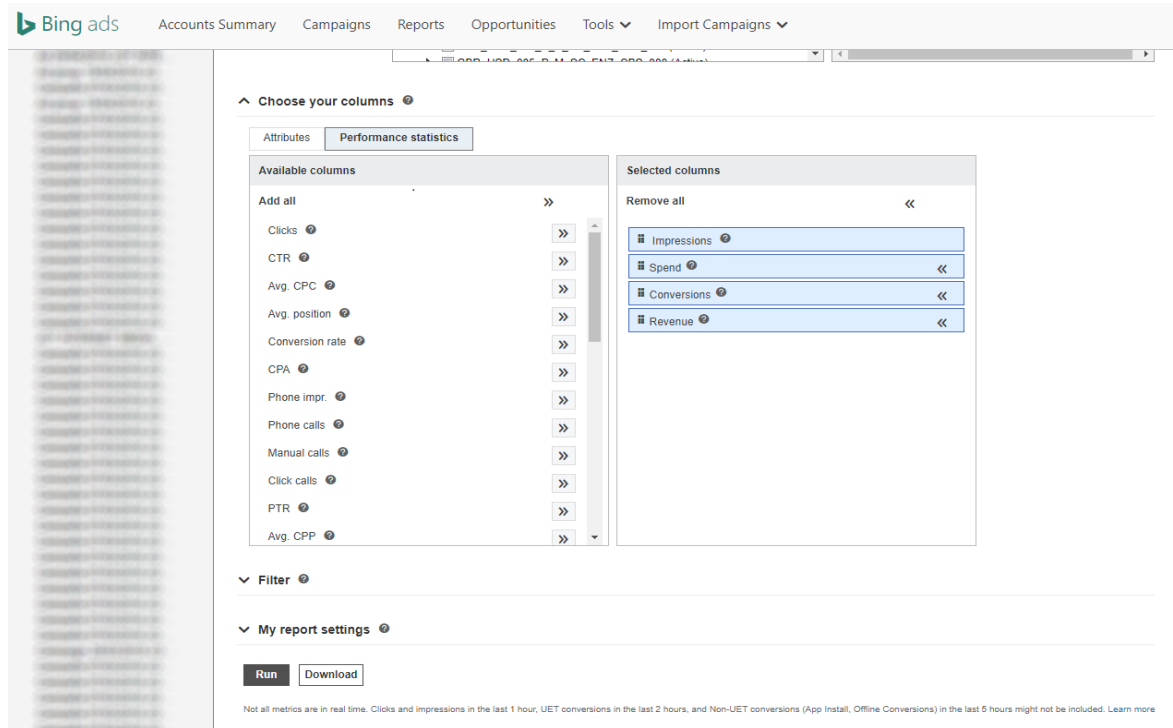


Figure 12. Report tab's interface on Bing Ads platform, "Choose your column" section (Bing Ads 2018)

Since reports downloaded from Bing Ads contain daily performance statistics of each campaign, the author generated a master Excel report based on report template of Company X which contains all data of the campaigns during a running time span of 42 days. In this report, a pivot table was created with aggregated data of each match type according to every performance metrics, which facilitates the comparison and conclusion making process. The table showing final data which is used in data presentation part is attached at the end of the thesis (appendix 3).

## 4.2 Data Presentation

After collecting all required data, the next step is to illustrate them and draw conclusions. Having consulted company representative and quantitative method advisor, the author decided to adopt Excel due to its suitability for the project. Excel data graphics tools make it slightly more advantageous to researchers who are not specialized at statistics, especially when compared to other advanced statistics software, for example SPSS (Duignan 2014, 2). Moreover, data of the project are numeric variables which can be easily processed and demonstrated using Excel. In order to achieve the objective of the thesis, the author needed to compare the performance of each match type given the similar setup. Therefore, the need to present final data in appropriate charts was highly important. Each performance metric was illustrated by a graph to address the difference in performance of the

four match types. This chapter contains data presentation, any thorough conclusion will be made in the chapter 5.

#### 4.2.1 Volume

Volume mentioned in this thesis comprises costs and clicks of each campaign throughout running period. The 100% stacked bar chart is used to present volume with a view to highlighting the relative percentage of each variant within the total amount. The figure below illustrates those metrics and the share of every match type.

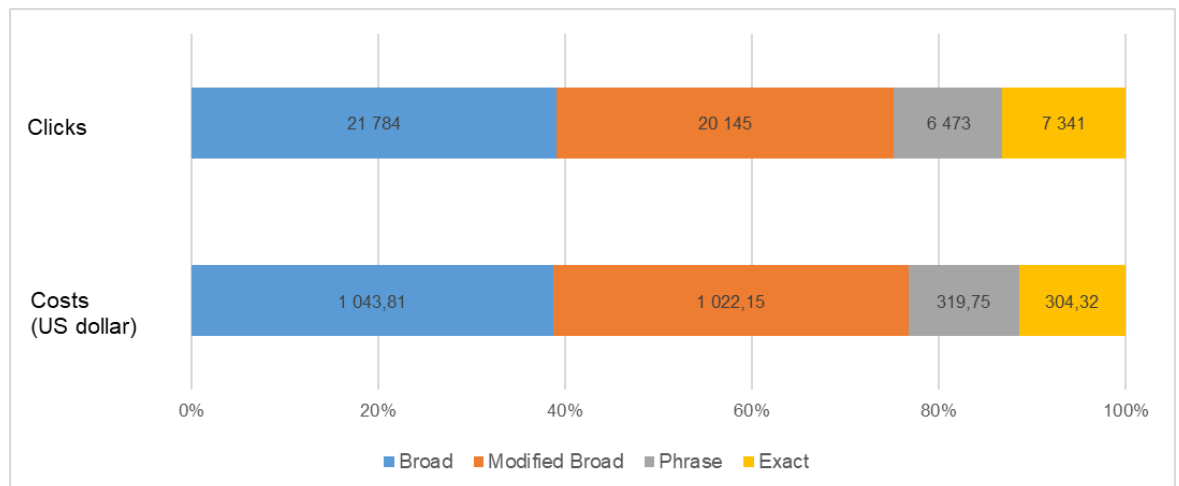


Figure 13. The share of each match type within total clicks and costs.

In terms of clicks, Broad and Modified Broad gathered the most clicks with more than 20 000 each, which called for 75% of the total amount. Phrase match gained slightly fewer clicks than exact, 6473 compared to 7341. There was a positive correlation between clicks and costs of these campaigns. Broad match type had the highest amount of 1043,8\$, which was nearly 39% of total spending. Followed closely by Modified Broad with 38%, corresponding to 1022\$. Together they also made up more than 75% of the total cost. In spite of having a lower number of clicks, Phrase cost marginally more than Exact match. However, their expense was both substantially small with approximately 310\$ each. In general, there was still a bigger reference for Broad and Modified Broad match type with the same keywords (Figure 13.) The volume of each match type was sufficient to take other metrics into consideration.

## 4.2.2 Click-through-rate

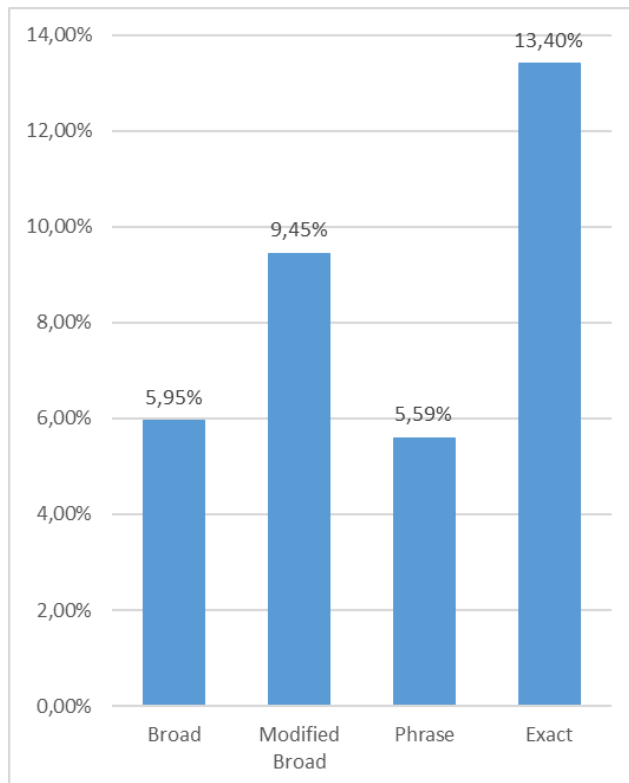


Figure 14. Click-through-rate of each match type

Among all match types, Exact had the highest CTR of 13,4%. Modified Broad came in second place with 9,45%, which was 30% less than that of Exact match. Regardless of highly relevant keywords, Phrase match's CTR was the lowest one, even behind Broad match, 5,6% compared to 5,9%. Exact match's lead in CTR was a prevalent expectation from advertisers. Thanks to its significantly relevant keywords, the content of the ad matches better with searcher's query, which is likely to gain more clicks and encourages advertisers to set higher bid. (Figure 14.)

### 4.2.3 Conversion rate

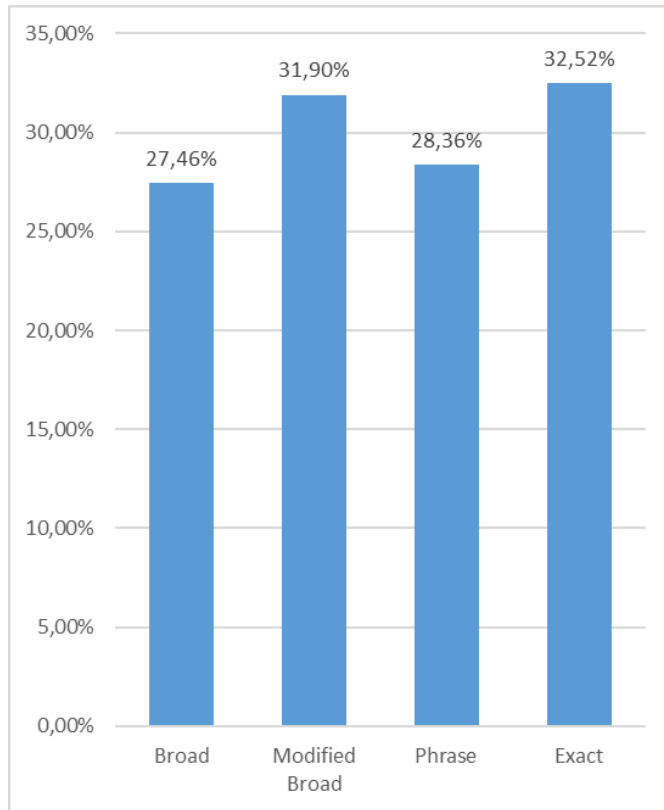


Figure 15. Conversion rate of each keyword match type

When conversion rate (CR) is taken into consideration, there is a close margin between each match type. Exact match stills had the highest CR with 32,52%, followed closely by Modified Broad with 31,9%. Phrase and Broad match gained considerable percentages of 28,4% and 27,5% respectively. (Figure 15.)

#### 4.2.4 Profit

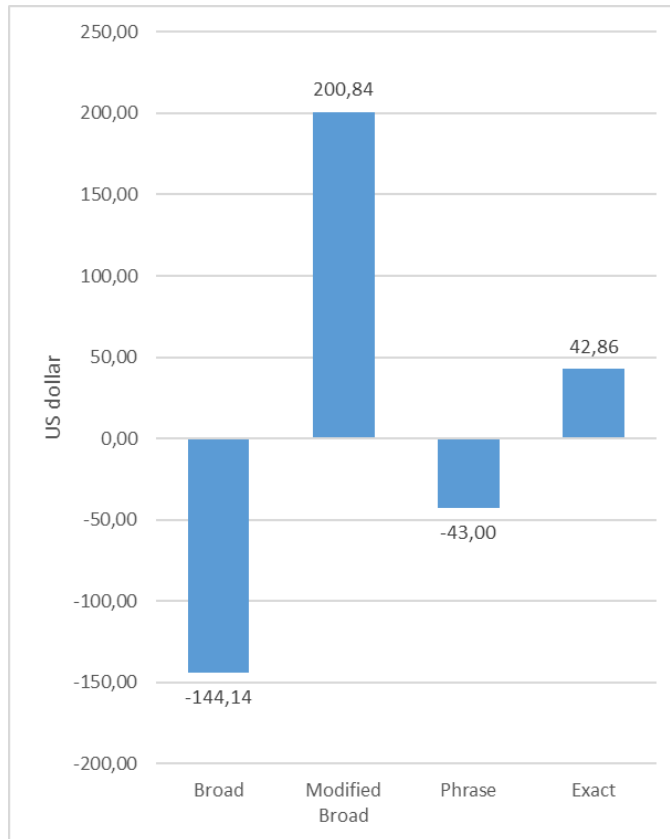


Figure 16. Profit of each keyword match type

In terms of profit, there was a drastic contrast among the match types. Modified Broad and Exact were the only two match types which yielded positive earnings, with Modified Broad being the most profitable one with 200\$. Exact match's profit was 42,9\$ which equaled only 21% of Modified Broad. Broad was the most unprofitable match type with the loss of 144,1\$. Phrase match shared the same situation and caused a budget deficit of 43\$. (Figure 16.)

#### 4.2.5 Return on investment (ROI)

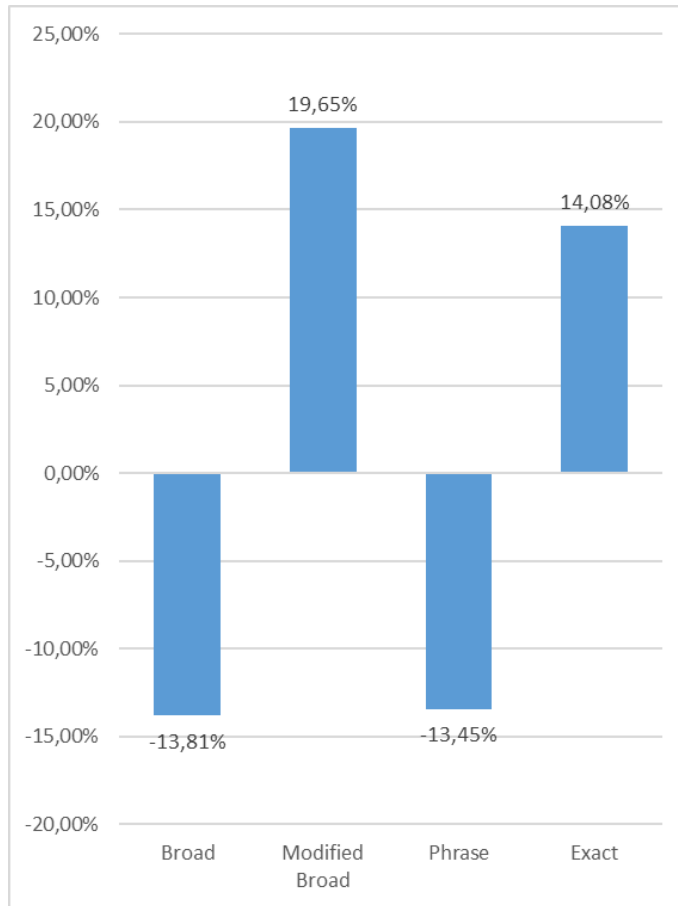


Figure 17. ROI of each keyword match type

There was a close correlation between profit and ROI of campaigns in the project. Modified Broad took the lead with 19,7%, while Exact match came in second with 14,1%. Both Broad and Phrase match fell far behind with negative ROI around 13% each. (Figure 17.)

## **5 Recommendations & evaluation**

Based on the charts presented in the prior chapter, the author was able to draw conclusions on the performance of each keyword match type in the project. Recommendation on which match types suitable for website Y's campaigns on mobile device in French market will be made, together with how Company X can utilize the results of the project for further development. In this chapter, the author also goes through the evaluation of project process and outcome. Self-reflection on knowledge and skills gained through the thesis will be discussed at the end.

### **5.1 Conclusions and recommendations**

When it comes to running paid search advertising campaigns, many marketers have been focusing solely on content such as creating attractive ads and eye-catching landing page. However, technical settings have gradually been counted as prominent determining factors of a successful campaign. The results of the project prove that keyword match type has a great impact on the accomplishment of a PPC campaign. With specific campaign background (market and device), proper choice of match types for keyword can save time and leverage resources for advertisers while boosting campaigns' competitiveness.

Combined real performance with theoretical framework, the author managed to make conclusions about keyword match types according to performance metrics. The fact that Broad and Modified Broad campaigns had the highest volume in terms of costs and clicks is quite different from theory but totally predictable. They are supposed to have high impressions due to their loose condition that any related concept or word in search terms that appears in keyword can trigger the ads. At the same time, these ads can be largely irrelevant due to the same reason, thus the two match types do not necessarily receive many clicks. Nevertheless, in reality, ads containing Broad and Modified Broad keywords have such a high exposure that they still can receive substantially more clicks than Phrase and Exact. It indicates that even though with the same keyword, Broad match type is still more likely to be chosen to display the ad instead of Exact. As mentioned in subchapter 2.3.1, the selection of ads to show involves many factors, not only keyword bid amount or ad's relevance. The high CTR of Exact match type reflects its characteristic of being the closest match to search terms, which makes the ads extremely relevant to what people are searching for. Came as a big surprise, Phrase receiving the lowest CTR despite being categorized as more precise targeting than Modified Broad and Broad.

CR of all match types are relatively high but there is an astounding difference concerning profit and ROI. The big loss of Broad match type was a consequence of high clicks on irrelevant ads, low quality score, and the CPC is higher than revenue per conversion. Given low CTR, Phrase match type could have made, to the minimum, low but positive profit. The fact that it failed to bring in any coin was an astonishment. Relevant ads could not compensate for high CPC and low quality score, which might be the main cause for this undesirable result. On the other hand, Modified Broad performed extremely well, scored the highest amount of profit and ROI. Many projects of Company X have also yielded high earnings with Modified Broad keywords. Profit coming from Exact keywords was a small amount mainly because low ad exposure leads to fewer clicks received. However, given its high ROI, it is a potential match type to invest time and resources into.

Based on the conclusions above, Company X is recommended to use Modified Broad and Exact keyword match type for website Y's Bing Ads mobile campaigns in French market. Throughout the project, Modified Broad has proved to be one of the most effective match types in terms of both quantity and quality, its high volume also yielded a high profit. If its cost is minimized whilst maintaining a high number of clicks, ROI of Modified Broad can be even higher. Meanwhile, Exact match's relatively high ROI is a positive sign. The company can maximize its promising profitability by increasing volume, which includes adding more keywords or boosting visibility of its ads. These two suggested match types in this thesis are working for the campaigns at the moment but cannot be completely guaranteed to be profitable in the future. Therefore, the company also needs to pay close attention to the change and involvement of keyword match types since Bing Ads always tries to leverage the use of them for advertisers.

The outcome of the thesis can be utilized for other projects of Company X as well, especially the ones for French market, mobile device, shopping comparison website, or a combination of these features. Not only keyword match types but ads, keyword categories, bid amount and automated rules are also worth considering when designing campaigns for those projects. Notwithstanding, before applying any setting to a new search advertising/PPC campaign of the same project or groups of similar campaigns, advertisers need to ensure its compatibility and suitability. The reason is that every campaign is assessed separately and distinctively by Bing Ads, thus they might be given a different quality score which affects the performance of keywords and ads.

Last but not least, the author proposes that more test like this project be carried out for other campaign elements. Ad copies, ad extensions, and bid adjustment (location, device)

are among potential variants for a test. The more tailored a campaign is, the more profitable it can be. Moreover, the task of managing domains for clients requires the company to constantly leverage their campaign running procedures and optimization methods.

## **5.2 Project evaluation**

The thesis follows the order of project tasks mentioned in subchapter 1.2. Started off with an initial idea while working in Company X, the author actively looked for supported theory in October 2017. The project officially commenced in November 2017 by interviewing company representative. Throughout campaigns running period, the author received a lot of help and valuable advice from website Y campaign manager. Writing process began in January 2018, the same time with "Thesis Planning" course at the university. There were a few challenges along the way which in fact excited the author to dive deeper into the field. The thesis topic is at the forefront of them. It is about a specific setting of search advertising element, which is considered to be rather unfamiliar and require certain knowledge from readers. However, the author has made sure that the thesis is understandable for laymen by giving necessary definitions, explanations and placing chapters in a logical order. Examples and figures are also added to visualize the text when needed.

Theoretical framework was one of the most difficult chapters to write. The reason is that information and knowledge must be relevant, academic, and updated simultaneously. Finding sources meeting those requirements was a highly demanding task. Another challenge is to evaluate the reliability of the information. During the internship period, the author had a chance to get to know some well-known websites and blogs in search advertisements which contain the most up-to-date information trusted by leading marketers and advertising agencies. Theories from books and journals were carefully selected and compared with latest guidelines directly from Bing Ads to provide a solid base for the thesis. Practices and procedures in campaign design and optimization methods of Company X were used to implement campaigns, as well as studied against the literature. Overall, the author enjoys the planning and writing process of the thesis.

The results of the project received positive feedback from Company X. The recommendations will be applied to Website Y and considered for their upcoming campaigns and projects. Even though the campaign running time was fairly short (42 days), the data is relatively sufficient to make conclusions and fulfill expectations of both parties. The author gained a substantial amount of knowledge from the outcome of the project, which is beneficial to his study path and professional career.

### **5.3 Reflections on learning**

Throughout the process of preparation and writing the thesis, the author has considerably deepened his learning, both academic and practical, in the field of search advertising. Research on the theoretical framework and project method has helped the author build up a more solid and scholarly knowledge base to better understanding previous and future working tasks. Researching skill has been sharpened by looking for related information through different channels offline and online. The requirement of selecting reliable sources for the thesis has improved the author's ability to assess the credibility of the information. It is also discovered that Bing Ads, and Microsoft in general, offers an impressive amount of instructions, guidelines, and tips to use their platform. However, any information in this field might change in the blink of an eye so a continuous learning attitude is needed to keep up with the latest trends.

The act of planning and implementing an actual project has been practiced and improvised in order to succeed in completing the thesis. For the author, time management is the most difficult task during the whole process. Balancing between study, work and social life is surprisingly challenging when writing thesis, yet it motivated the author to push himself further and be ready for the future career.

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## Appendices

### Appendix 1. List of questions used in the interviews

Below is the list of questions prepared by the author for the two interviews with Company X representative.

#### 1. The first interview

- Should new accounts be created for the project or using existing accounts is acceptable?
- From which PC account the campaigns are duplicated?
- Which campaigns are suitable? Why?
- Which factors do we need to pay attention when copying campaigns?
- What are the settings of duplicated campaigns that require changes? Why?
- Is there any setting we should add to these campaigns?

#### 2. The second interview

- Based on the list of performance metrics, which one should be used in the project to measure campaign performance? Why?
- What to notice when analyzing those selected metrics?
- Which kinds of report can we use for the project?
- How long should we run the campaigns?

## Appendix 2. Detailed meaning of keyword quality score values

The table below shows more precise explanations of quality score values with information provided by Bing Ads Help Center.

Table 4. Meaning of quality score values (Bing Ads Help Center 2018).

Quality Score	Description
1-5	“Underperforming” keyword, which means if a search term matches that keyword, your ads have less chance to be shown. A keyword receives score under 5 when at least one of the three quality score components is Below Average.
6	“Competitive” keyword - a keyword which has a combination of Average and Above Average, or all Average, for the three quality score components. However, it still cannot outperform other keywords with the same targeting traffic.
7-10	“Very competitive” keyword - a keyword which performs better than other average keywords with higher CTR in the same marketing place. Its three components of quality score are Above Average.

### Appendix 3. Snippets from the author's report used in the project

#### 1. Final aggregated data used in Data Presentation

20/12-30/01/2018							
Match Type	Total Profit	Total Cost	Total ROI	Total Clicks	Total CPC (USD)	Total Bing_CR	Total CTR
Broad	-144,14	1 043,81	-13,81%	21 784	0,048	27,46%	5,95%
Modified Broad	200,84	1 022,15	19,65%	20 145	0,051	31,90%	9,45%
Phrase	-43,00	319,75	-13,45%	6 473	0,049	28,36%	5,59%
Exact	42,86	304,32	14,08%	7 341	0,041	32,52%	13,40%

Figure 18. Snippet of final aggregated data from the author's report

#### 2. Snippet from pivot table showing daily data of each keyword match type's performance

The author's report is built based on Company X's template, thus some settings in the pivot table are different than other parts. In figure 19 below, the date format is set as American one (mm/dd/yyyy) and every match type is assigned a code for the convenience of data management:

- 380: Broad
- 206: Modified Broad
- 392: Phrase
- 385: Exact

Row Labels	Column Labels								
	Profit			Cost			ROI		
	01/12/2018	01/11/2018	01/10/2018	01/12/2018	01/11/2018	01/10/2018	01/12/2018	01/11/2018	01/10/2018
380	-10,43	-2,06	-1,69	28,86	26,17	25,70	-36,13%	-7,85%	-6,58%
206	62,43	12,16	5,28	29,08	28,60	28,75	214,68%	42,51%	18,36%
392	-0,89	-0,87	1,44	6,81	5,38	8,34	-13,05%	-16,26%	17,25%
385	4,49	1,17	-0,73	6,88	7,58	8,43	65,30%	15,50%	-8,66%
Grand Total	55,61	10,40	4,30	71,63	67,73	71,22	77,63%	15,36%	6,03%

Figure 19. Pivot table from author's report with daily data from 10 January 2018 to 12 January 2018