Visualizing Google Analytics', Digital Marketing Campaigns' and e-shop's data using BI tools

Klifopoulos Achillefs

SID: 3308180006

SCHOOL OF SCIENCE & TECHNOLOGY

A thesis submitted for the degree of

Master of Science (MSc) in Data Science

December 2019

THESSALONIKI – GREECE

Visualizing Google Analytics', Digital Marketing Campaigns' and e-shop's data using BI tools

Klifopoulos Achillefs

SID: 3308180006

Supervisor:	Ioannis Magnisalis
Supervising Committee Members:	Assoc. Prof. Name Surname
	Assist. Prof. Name Surname

SCHOOL OF SCIENCE & TECHNOLOGY

A thesis submitted for the degree of

Master of Science (MSc) in Data Science

December 2019

THESSALONIKI – GREECE

Abstract

This dissertation was written as a part of the MSc in Data Science at the International Hellenic University. The objective is to visualize a variety of data that were produced by implementing advertisements for two e-shops owned by a local businessman in Thessaloniki, Greece. This task included basic marketing knowledge, familiarity with Facebook's and Google platforms for advertising, as well as exploratory data analysis skills. Moreover, utilization of Business Intelligence (BI) tools was an essential requirement, in order to visualize and analyse the gathered data. In consequence, we created appropriate advertisements in order to generate our data, examine them and construct meaningful visualizations, aiming in extracting information that could be proved profitable to our client.

I would like to thank my supervisor Dr. Ioannis Magnisalis for the guidance and all the advice that he provided me in every step throughout my time as a student.

Finally, I would also like to sincerely thank my family and friends for their patience and their continued support during the ups and downs of this journey.

Klifopoulos Achillefs

21/12/2019

Contents

1 Introduction

In this thesis we shall focus on the visualization of data regarding two existing e-shops (globalspot.gr and earhealth.gr) in Thessaloniki, Greece. Our first step towards achieving this task, was to collect data from Google Trends about four specific products. These products were a posture corrector, an anti-cellulite massage device and a blender appliance, for globalspot.gr, while for earhealth.gr, the products included earplugs for various activities. Google Trends data provided us with dates, so to decide the time that our advertisements would start and end. Our goal initially was to run our advertisements in periods that the public interest regarding the products was in high levels, therefore, to increase sales and satisfy our client.

The next step was the implementation of our advertisements in Google and Facebook Ads in the selected dates so that to generate the data for our visualization process. After that, we collected our data from diverse sources, such as Google Trends, Google Ads, Facebook Ads, Google analytics and e-shop sales and then we tried to link them. Furthermore, we analysed and visualized them, utilizing the aforementioned online platforms as well as Microsoft's Power BI Business Intelligence tool. This task assisted us to examine our data, draw conclusions and identify potential factors that may affect our client's sales.

The structure of the dissertation begins with background information, such as sales and marketing data, followed by digital marketing data, as well as digital campaigns. The following step provides knowledge regarding data visualization and sets our research goals. The next chapter portrays our marketing plan and implementation in Google and Facebook platforms, in addition to present some vital definitions. In the discussion section, we display our data analysis from the gathered data from the variety of sources. After this, we exhibit our visualizations regarding the promoted products. The final chapters highlight our results, as well as the conclusions that were drawn during this thesis.

2 Background

On this section, we will briefly discuss about data from e-shops and more specifically about sales data. Additionally, information regarding marketing data, Google and Facebook ads will be presented. Furthermore, we will briefly discuss for each component of our dissertation's title, such as visualizing data, Google Analytics and Digital Marketing Campaigns.

2.1 Sales Data

We mainly focused on sales data for our analysis that were generated in client's e-shops (globalspot.gr and earhealth.gr), Facebook ads, Google ads and Google Analytics tools. However, our first step towards the production of our data, was using the Google Trends tool in order to gather data that would assist us to plan our ads strategy. Google Trends presents in a graph the Google's search volume (interest over time) of a given search term that takes values from 0 to 100 in a specific period for a selected geographic region [1]. These data give an approximation of when it is a suitable or a disadvantageous date to promote a product or a service in a specified location.

Our main source of data is sales data that were extracted manually from the e-shops. More specifically, earhealth.gr is implemented on WordPress, while globalspot.gr on PrestaShop. WordPress is an online publishing platform that provides the means for anyone to publish on the internet and in our case, to build a fully operational e-shop [2]. By the same token, PrestaShop is an online shopping cart platform that assists businesses to construct and operate an e-shop [3]. The sales data that we obtained from the two platforms consist of the following:

- Product name
- Product price
- Product quantity
- Date of order

A better view of the data will be presented in the following sections.

2.2 Marketing Data

In addition to the sales data, we also gathered and analysed marketing data and more specifically, digital marketing data. According to [4], the term Marketing describes the collection of processes, in which individuals or groups of people can exchange products and services depending on their needs. Additionally, [5] states that the purpose of marketing is to satisfy consumers by offering goods and services depending on the current demands. In the next subsections, we are going to present some basic information regarding traditional and digital marketing.

2.2.1 Traditional Marketing

This is the primal way of marketing, before the age of internet. More specifically, the term traditional marketing includes the well-established channels like print media, television and radio commercials, direct mail, door to door marketing, billboards, banners, etc. The goal is to stimulate customer's attention and then discover and fulfil their needs [4, 5].

2.2.2 Digital Marketing

Digital marketing is the modern way of marketing that businesses exercise, in order to reach their consumers. The goal remains the same as in traditional marketing, but the medium that carries out the task of marketing changes. The internet is the main channel that is used to reach and connect with customers, via personal computers, tablets and smartphones. Some applications that take advantage of the new technologies regarding digital marketing are e-mail, Social Media (Facebook, Instagram, Twitter, etc), Search Engine Optimization (Google Ads in our case) and more [4, 5].

2.3 Digital Marketing Campaigns

Traditional marketing has still an advantageous medium of marketing which is television, since there is almost at least one appliance in every home. This means a considerably wide target audience and potential customers. However, digital marketing has more advantages, with the most significant being the broad variety of products, the ease of reaching a broad consumer audience, the speed of interaction and shopping as well as the constant availability and access any time, every day. Moreover, digital marketing

provides the ability to implement multiple campaigns simultaneously, which may run all over the globe, focusing on specific groups, while we monitor their impact, demographics, goals, costs and their performance in general [4, 5]. In the following subsections we will describe the platforms that we used to create our campaigns.

2.3.1 Facebook Ads

One of the platforms that we decided to run our campaigns regarding the four products, is Facebook ads. This tool integrates Facebook and Instagram in one platform in which users can design and implement advertisements (ads) that will be displayed in those two social networks. In order to implement our ads with this tool, we need three elements: a campaign, and ad set and an ad. These components constitute the campaign structure. In the campaign level, we set our goal for our ads, for example increase traffic to our website, or maximize clicks. In the ad set level, we determine the parameters that shape our targeting strategy, such as budget, schedule, audience, bidding and placement. Finally, the ad element, is the product of our creative visuals, for instance pictures, videos and text that assist us to capture the attention of our audience to our merchandise or service that we advertise [6]. Moreover, using the same interface of this platform and the exact same procedure with minimum modifications, we implemented Instagram ads with ease. Another feature of Facebook Ads platform is that we can build and run various campaigns that contain numerous ads, all at the same time, with each one having the parameters of our choosing.

2.3.2 Google Ads

The second advertisement platform that we utilized for our project was Google Ads. Google Ads is Google's online tool for advertising. It can assist users in selling their merchandise, increase traffic to their website, promote their business and raise awareness. All these while targeting audiences that are specifically interested in what the business owner offers [7]. In Google ads, we define campaign as a collection of ad groups such as ads, keywords and bids, that share the same settings, for example budget, targeted audience, location, etc. Campaigns are utilized in order to arrange various types of products or services that a business owner plans to promote. Additionally, in order to create a campaign, users need a Google ads account and each account can potentially have one or more ad campaigns that are active at the same time. Furthermore, they are conceptually similar to Facebook ads, since we may also

manufacture multiple campaigns that include a variety of ad groups that run ads with distinct parameters, such as budgets, locations and languages, as well as different time schedules [8].

2.3.3   E-mail marketing

This digital form of marketing utilizes e-mails as a medium in order to deliver the advertisements to a collection of users. However, the audience that receives these commercial messages must have given their consent initially so to obtain them. Usually, the recipients have shown interest to the businesses that send those mails and can be subscribed to a mailing list, an e-mail newsletter, a discussion list or a customer database. This can establish customer/consumer relationships of loyalty and trust in addition to brand awareness, which may lead to increased revenue, if used in an appropriate manner. Some of the beneficial characteristics include the ease of use, minimum production and delivering costs, message personalization depending on customer and finally, they can contact an extremely wide audience in a miniscule timeframe. Nevertheless, if e-mail marketing has an inadequate configuration regarding customers interests or ineffective personalization, becomes spam. Spam is the other side of the marketing coin, which is an undesirable effect for e-mail recipients and can damage sender's credibility, costing time and money [9].

2.4 Visualizing Data

The term data visualization describes the graphical representation of data and information [10,11]. Data visualization utilizes graphical forms such as charts, graphs and maps, in order to assist users identify outliers, understand trends, discover patterns and correlations in their data. Moreover, these findings might not be noticed if they remained into traditional reports or excel tables and spreadsheets. Furthermore, studies argue that humans are highly attuned to learning visually, since our brain processes visual data 60,000 times faster than text and this type of data constitutes 90% of the total information our brains receive [11]. Nowadays, data visualization technologies are a trivial means of information analysis, regarding the massive amount of data that enterprises and organizations have access to. Therefore, data visualization helps businesses to draw conclusions, identify influential factors and to support decision making process. However, in order to visualize data, data analysis is needed and more specifically exploratory data analysis (EDA). According to [12] EDA is a statistical

approach for data analysis that frequently uses visualizations techniques, having as main goals to:

- Maximize insights of the data

- Reveal underlying structure

- Extract significant variables

- Spot anomalies

- Test assumptions

- Detect ideal parameter configuration

- Develop uncomplicated models

Finally, exploratory data analysis can be regarded as a philosophy about the manner that data are handled and scrutinized as well as how they are deciphered or explained [12].

2.5 E-shop Data Visualization

For our thesis, we collected data from various sources, such as e-shop sales, Facebook and Google Ads, combined with Google Analytics and Trends, in order to analyse them and visualise them. Therefore, we employed Business Intelligence (BI) tools for this purpose. According to [13, 14] Business Intelligence can be defined as the process of applying tools and techniques to collect and evaluate complex data from a variety of sources, having as a goal to produce knowledge that improves the decision-making procedure. There is a long list of Business Intelligence software tools, Microsoft's Power BI, Google's Data Studio, Qlik Sense and Tableau, just to name a few. All these tools utility is to help users visualize their data story through highly configurable graphs, then transform them into insights and make informed decisions without delay [15, 16, 17]. Power BI is a free business analytics software, that provides the means to visualize our data, share our insights across a business or organization, or even embed them in a mobile application or a website. Additionally, it integrates seamlessly with Microsoft Excel, which is an advantage for the dataset creation process. We chose to implement our project, with Microsoft's Power BI, since according to [18], Power BI is among the leaders in Analytics and Business Intelligence platforms.

2.6 Google Analytics

In order to connect and examine our digital marketing data that were generated from our ads, it is essential to inspect our website traffic. For this purpose, web analytics is a necessity. The authors of [19] give the definition of web analytics as '*the technology and method for the collection, measurement, analysis and reporting of websites and web applications usage data*'. Web analytics use some key indicators that measure the interactions between the user and the website, such as the number of visitors, the number of page views, the time that a user spent on navigating through the website, the click path, etc [20]. For carrying out this task, we utilized Google's specific product, Google Analytics. This specific Google tool provides us a better understanding about the behaviour of our website users. It can be utilized in order to inform us about what happens after users click our ads. Furthermore, we can discover the ways that people found our website and their exploration while browsing it. This information plays an important role concerning possible improvements for our business site. The combination of Google Analytics and Google ads can further enhance the users' experience while navigating through the website, which may lead to increased conversions for example sales and sign-ups as well as greater return on ad spend (ROAS) [21].

2.7 Goals

Our goals in this thesis, concerning the e-shops sales data along with the Google and Facebook advertisements, can be summarized in the following steps.

1. Advertisement Implementation
2. Data collection
3. Datasets creation
4. Data unification
5. Data visualization

3 Design and Implementation

In this chapter we present our process regarding the actions that were taken in order to implement the advertisements for our campaigns in Facebook and Google platforms.

3.1 Google trends data

Earhealth.gr products July

Our first experimental approach focused on earplugs (ωτοασπίδες) products in order to create our marketing plan. We selected Google to be our search engine platform, since it still dominates the global search engine market [22]. Firstly, we searched on google anonymous search mode for the terms "ωτοασπίδες alpine" and "ωτοασπίδες". The first term was in favor of our e-shop, regarding the search list ranking, considering the fact that it appeared on the first page of Google's results and more specifically in the top 4 links, (3rd and 4th link as can be observed in the following screenshot. This is a normal outcome, since our e-shop is the exclusive dealership for alpine products in Greece. The first two links were occupied by a well-established best price comparison website named "σκρουτζ", while their main competitor (bestprice) occupied the 6th position. Image 1 below depicts the specific search results.
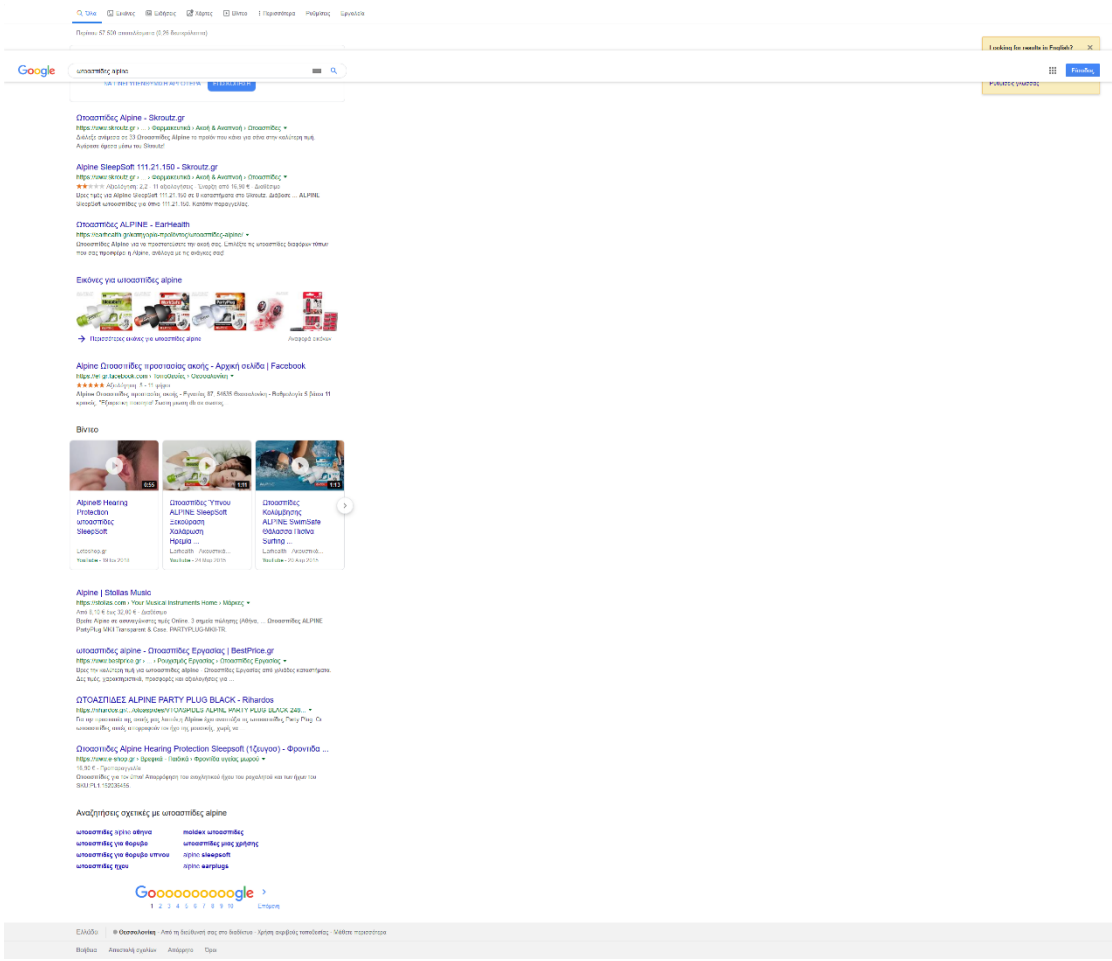
Image 1: Alpine earplugs Google search

The second term "ωτοασπίδες" (earplugs) which is undoubtedly a more general searching term, did not provide a paid ad result in google search, however it appeared as a map search result on the bottom of the list, as can be seen next, in Image 2.
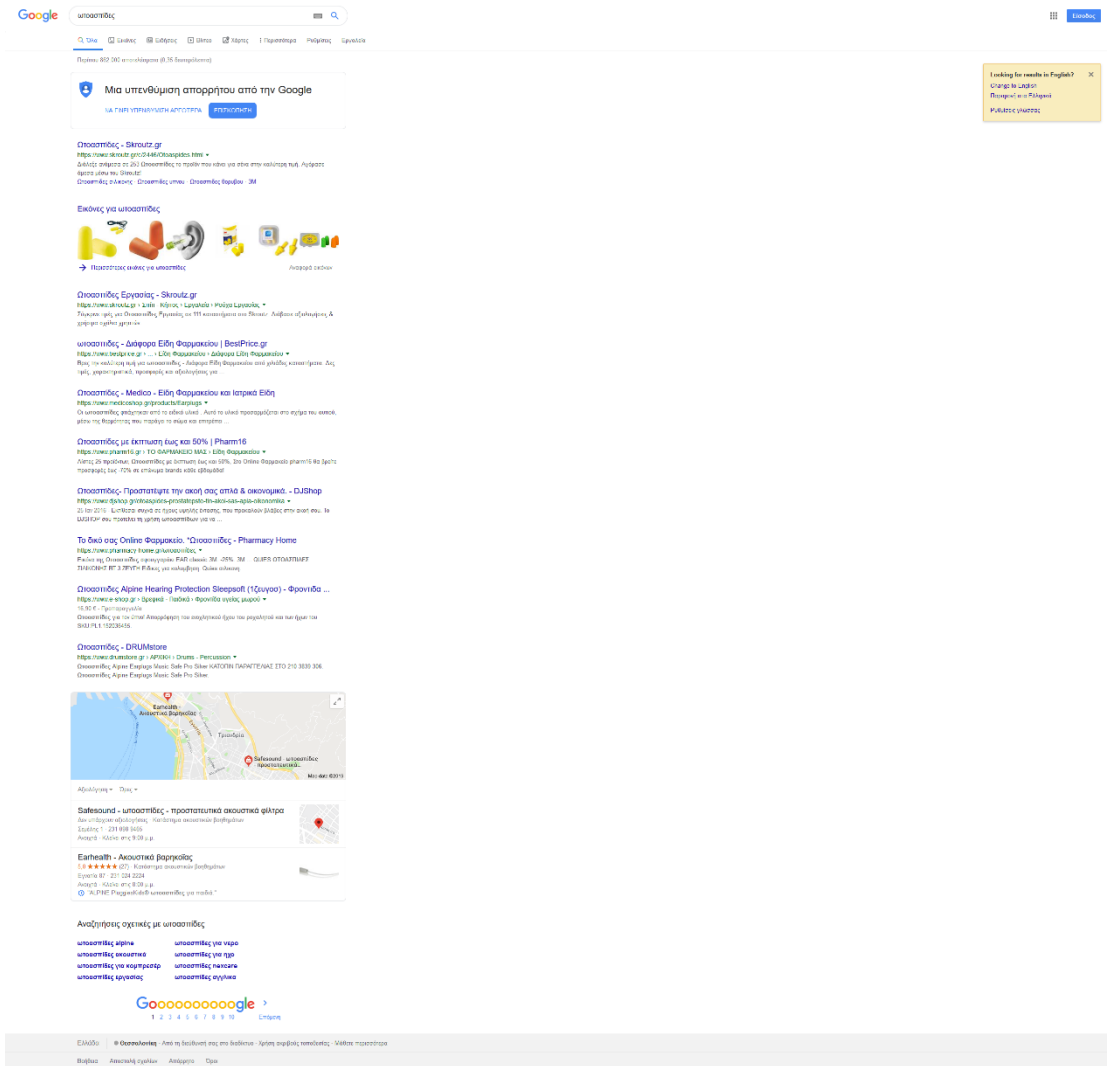
Image 2: Earplugs Google search

We applied our search terms in Google Trends in order to have a glimpse in the data about public interest over the last twelve months and it provided us with the following information, as can be observed in Image 3.
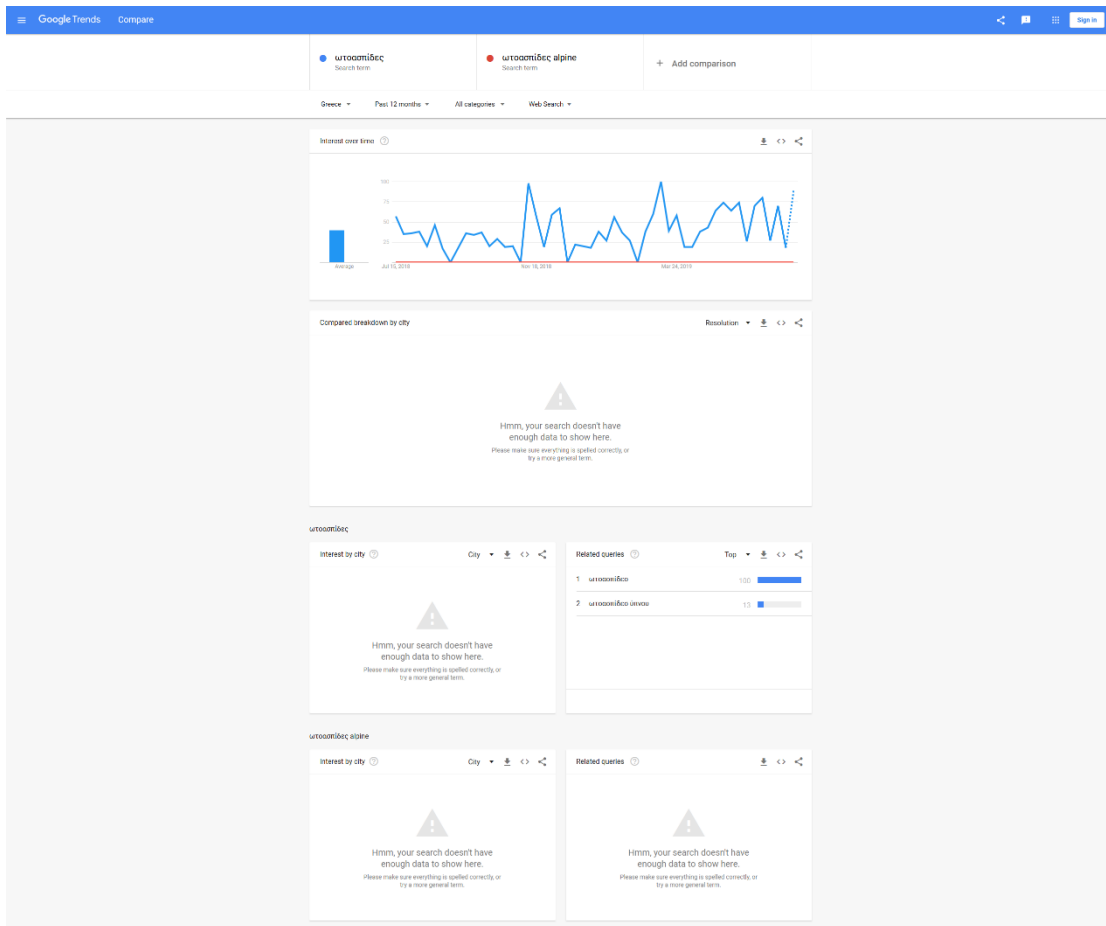
Image 3: Google Trends, comparison of terms earplugs and alpine earplugs

It is obvious that the specific term is targeting Greece's audience since our client serves only customers that reside in Greece. Furthermore, the second search term ("ωτοασπίδες alpine") has almost zero interest over time (flat red line), while the general term for earplugs ("ωτοασπίδες") fluctuates during the given time frame. The max values occur in November (11 – 17, 2018) and March (10 – 16, 2019), while the lowest values on September (2 – 8, 2018), November (4 – 10, 2018), December (16 – 22, 2018) and February (17 – 23, 2019). We selected to implement our first campaign in 15th of July, so to run our ads in a relatively conducive period, according to Google Trends. We ran a Google ad from 15 of July 2019 to 31 of July 2019 and a Facebook and Instagram ad for a slightly longer time frame, from 17 of July 2019 to 3 of August 2019. The process that was followed will be described in the implementation section.

Globalspot.gr products August

Our second experiment focused on three products of the second e-shop of the same client (globalspot.gr). Those products were a posture corrector, a blender appliance and an anti-cellulite massage device. The approach was the same as the procedure above, that

was conducted in the earplugs campaign. However, we faced an issue while using the Google Trends tool in July, since there were no data available at that time for the posture corrector ("διορθωτής πλάτης" or "νάρθηκας πλάτης" or "κηδεμόνας πλάτης") and the anti-cellulite massage device ("αντικυτταριτιδική συσκευή μασάζ") search terms. This fact did not limit our campaign dates as in the case of earplugs, in which we had to synchronize the periods of our ads and of Google Trends' peaks in order to boost our sales. Additionally, there were no paid advertisements in Google while searching for the three aforementioned terms for the posture corrector, as well as for the anti-cellulite massage device. Once more, this fact would be an advantage in economic terms.

The broad term "μπλέντερ" (blender) included an ad in Google's search results (public.gr) in addition to the Google Trends data, which generated the following graph in Image 4.

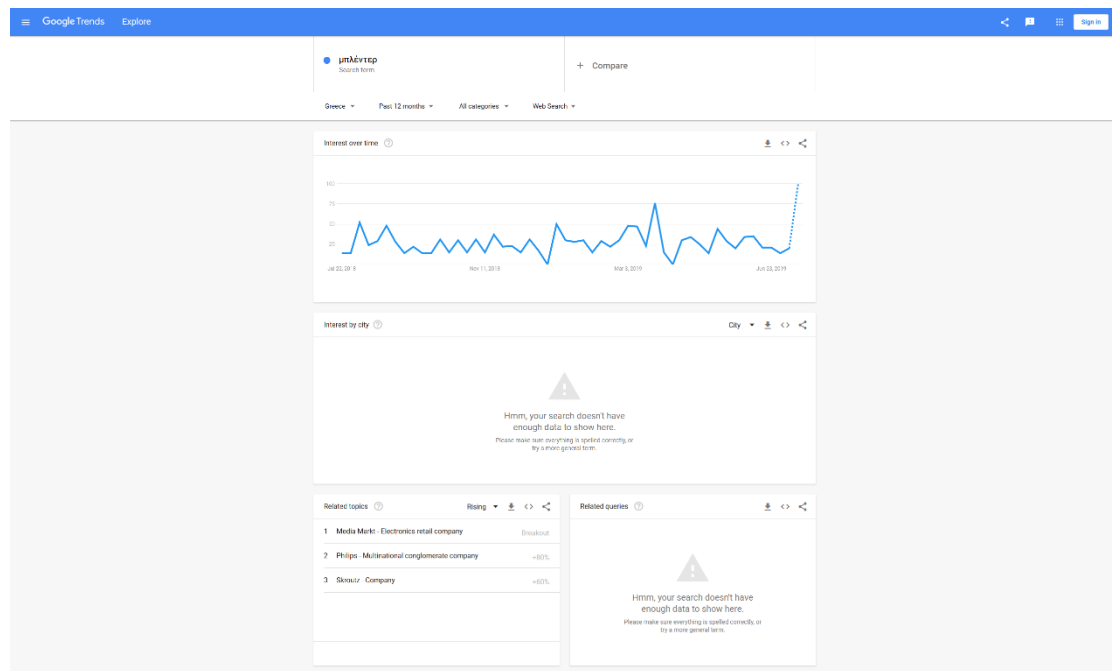Image 4: Google Trends, blender appliance

For this product, Google Trends graph indicated that by the end of July and on the first week of August of the previous year (2018), the public interest for blender appliances is increased. Using this information, we decided to run our campaigns in Google Ads, Facebook and Instagram Ads for these three products from 31 of July 2019 to 15 of August 2019.

Earhealth.gr products October

Our third and last experiment was a repromotion of the earplug products, in order to compare it with our first attempt. Ideally this would include all of the previous advertised products, so to generate more data that would benefit our task. Nevertheless, this project was abandoned, since client was reluctant about investing a greater or even a similar budget in the way of the previous campaigns. Moreover, the search volume for the term "ωτοασπίδες" was in extremely low levels for the first three weeks of October 2018 compared to other months, therefore the odds were not in our favour regarding the promotion process. More specifically, the values for the Google Trends for the corresponding period in 2018 were 32, 0 and 39 accordingly. The red markings in Image 5 portray these results.
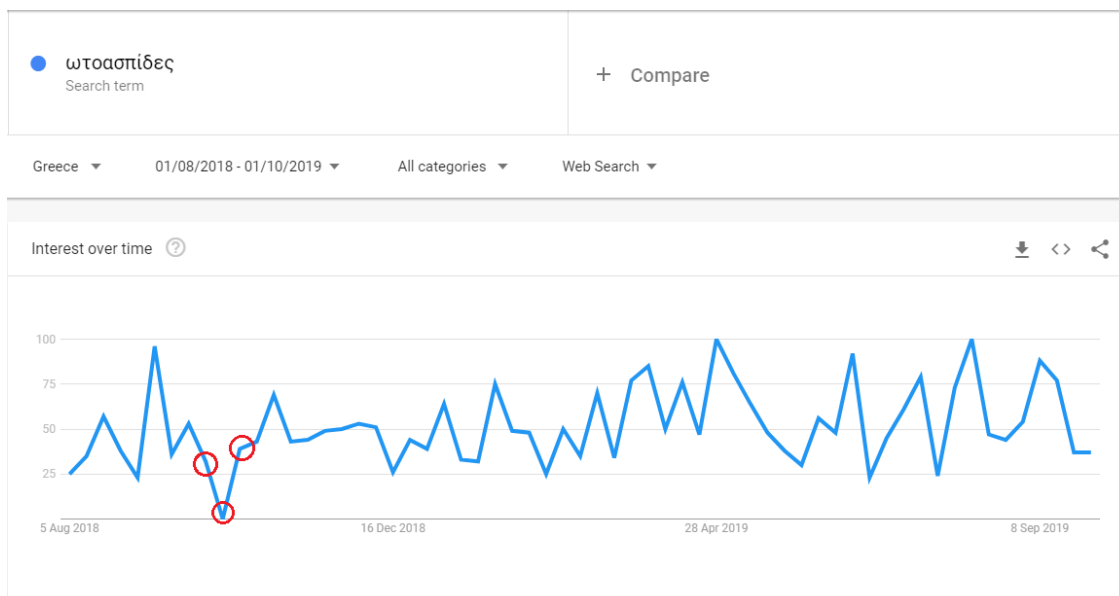
Image 5: Google Trends, Earplugs

3.2 Marketing Plan and Implementation

In order to generate our data, we implemented ads in Facebook, Instagram (business.facebook.com) and Google (ads.google.com). It is known that both are perhaps two of the most famous platforms with the most users, meaning that they can reach an extremely great amount of people, creating potential customers. Due to the fact of insufficient funds, we scaled down our available budget for all ads to a minimum of 2€ per day for Google, Facebook and Instagram ads. All advertisements ran for approximately 2 weeks, having as a goal to maximize clicks.

The following four products were advertised in total, during our experiment:

- Earplugs (For earhealth.gr)
- Posture corrector (For globalspot.gr)
- Anti-cellulite massage device (For globalspot.gr)
- Blender (For globalspot.gr)

Tag Management Systems

Our first step was to connect our websites (earhealth.gr and globalspot.gr) with Google and Facebook Analytics (Google Analytics and Facebook Pixel), wherever it was possible. For this task we utilized Google's free tool, called Tag Manager, which is a tag management system (TMS). Google Tag Manager assists users to update in a fairly easy and effective way measurement codes and related code snippets that are known as tags on their website or mobile application. As soon as the fragment of Tag Manager code has been added to a project, analytics can be deployed in a safe and easy manner. Moreover, measurement tag configurations can be performed through a web-based user interface [23]. Some excellent examples of tags are Google Analytics tracking code, Google Analytics event codes, Google Ads conversion script and remarketing tags. Custom code is another option as an alternative type of code that can be used in a website that needs to track its interactions [24]. GTM does not substitute Google Analytics, on the contrary, it assists users to add effortlessly Google Analytics tracking code (tag) to their website, deploy GA event code fragments and set rules that define when a GA event must be activated. By the same token, Facebook pixel enables us to evaluate the performance of our ads by monitoring users' activities while browsing our website [25]. These activities may include events such as buying an item or adding a product to their shopping cart.

3.2.1   Facebook Ads

As the name implies, Facebook ads are advertisements that are displayed on Facebook. More specifically, on desktops, they may appear in News Feed and in the Right Column of Facebook, while on mobile devices, they only appear in News Feed [26].

Earplugs July campaign

Our first campaign was created to promote the earplugs (Traffic | Alpine | 17.07.19). This campaign consisted of two ad sets (Facebook and Instagram Stories), with each ad set containing an ad specifically for Facebook or Instagram, as can be seen in Image 6.
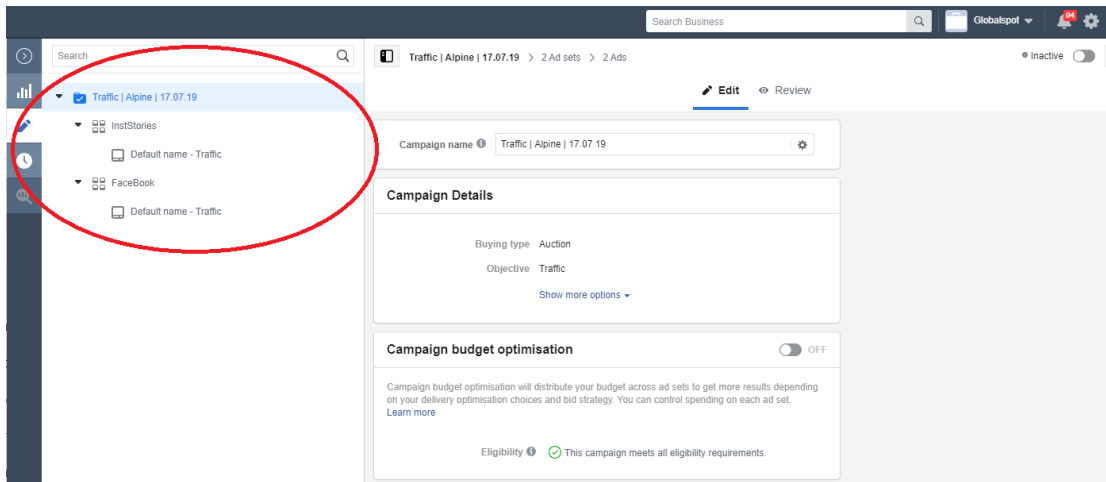
Image 6: Alpine Campaign drop down menu with ad sets and ads.

In the earplugs ad, the primary focus was to increase traffic in client's website (earhealth.gr). Therefore, in the ad creation process we chose traffic and we selected to drive this traffic to the website. We also set the daily budget to 2€, which was the average amount of money that was decided to spend on each ad set for every day that our ads would run. However, the actual amount spent per day may fluctuate. In case that the ads have better chances to get desirable results, this daily limit might be exceeded. For example, some fruitful days might consume 2.50€ and some ineffective days may use less than the daily budget in order to maintain its average value.

Some other important elements that must be taken into consideration are location and audience. In our case, the location that we set in each one of our ads is only Greece, since our customer can serve clients that solely reside in this area. The audience's age was set to 18-65+, focusing people who are interested in listening to music, sleeping, swimming or traveling and may become potential customers. Furthermore, we selected the option that displays our ads only in Facebook News Feed, in order to save our low budget and maximize the number of times that they were on screen. Moreover, in the optimisation and delivery section, we chose the landing page views option, so Facebook could deliver our ads to users who would potentially click on our ad's link and then load our website (in this case earhealth.gr). Finally, we used the bid control feature and set it to 0.15€, which was the maximum bid in each auction. This feature dictates Facebook's algorithm to focus on getting the maximum number of landing page views, without bidding more than the price we set, in any auction, using the bid-cap bid strategy. We utilized this option so to control our bids in the auction and distribute our daily budget in a more balanced manner. On the other hand, bid control feature is less flexible and might

lead to a bottleneck in ad delivery. Combined with the low values we set in daily budget and maximum bid, we may experience reduced display number of times of our ads [27]. As far as the design of the ads is concerned, we created a carousel of appropriate (in compliance with Facebook policies) images depicting the product or relative activities regarding its usage, that would prompt users to click on the "shop now" button, in order to be transferred to our client's website and more specifically on the page that the earplugs categories are located. Additionally, we chose the option to automatically show the cards (the images combined with some ad texts like headlines and descriptions) with the best performance, in terms of clicks. In the same way, we created an Instagram ad, by simply duplicating the Facebook ad set and changing the placements option, so our Instagram ad would only appear in Instagram stories. No further changes were made in the final ad. Image 7 presents the results after the ads have ended.

Name		Reach	Impressions	Amount spent	Frequency	CTR (all)	Unique clicks (all)	Link clicks	CPC (all)	Clicks (all)	Page engagement
> InstStories		193	194	€0.09	1.01	–	–	–	–	–	–
> FaceBook		140	144	€0.09	1.03	6.25%	8	10	€0.01	9	10
> Results from 2 ad sets ⓘ Excludes deleted items		333 People	338 Total	€0.18 Total Spent	1.02 Per Person	2.66% Per Impressions	8 Total	10 Total	€0.02 Per Click	9 Total	10 Total

Image 7: Earplugs Ad sets and metrics

In the exact same manner, we implemented the ads for the three products of globalspot.gr that were promoted from the end of July until the middle of August. Likewise, each product included a Facebook and an Instagram ad, utilizing the carousel format as the structure that would capture our audience's interest.

Posture Corrector campaign

For the posture corrector product ad set, we slightly increased the minimum age of our targeted audience from 18 to 25 years and we kept the same maximum value of 65+ years of age, compared to the earplugs ad. This modification was made bearing in mind that this product would majorly interest people older than 20 years of age. In the design of the carousel structure, we selected only three images, since the purpose and the appliance of the product is quite simple and unambiguous. The following image, Image 8, depicts the Facebook and Instagram ads and their main metrics after the ad completion.

Ad set name		Reach	Impressions	Amount spent	Frequency	CTR (all)	Unique clicks (all)	Link clicks	CPC (all)	Clicks (all)	Page engagement
InstaStories Διορθωτής Πλάτης InnovaGoods		46,680	61,634	€29.93	1.32	0.58%	334	354	€0.08	360	354
Facebook Διορθωτής Πλάτης		28,344	41,990	€30.01	1.48	2.01%	669	674	€0.04	842	700
> Results from 2 ad sets ⓘ		75,168 People	103,624 Total	€59.94 Total Spent	1.38 Per Person	1.16% Per Impressions	1,000 Total	1,028 Total	€0.05 Per Click	1,202 Total	1,054 Total

Image 8: Posture Corrector Ad sets and metrics

Anti-cellulite Massage Device campaign

Similar to the posture corrector, the anti-cellulite massage device had also small deviations in its audience section. We selected the target group to be only women, having the values of 18 – 65+ for the age parameter and that are also interested in cosmetics or massage. This product is also for specific usage, therefore we only included four images while creating our carousel design for both Facebook and Instagram ads. Image 9 shows the main metrics of this campaign.

	Name		Reach	Impressions	Amount spent	Frequency	CTR (all)	Unique clicks (all)	Link clicks	CPC (all)	Clicks (all)	Page engagement
>	InstaStories Συσκευή Μασάζ Beper		29,856	46,112	€31.16	1.54	0.93%	365	413	€0.07	428	413
>	Facebook Συσκευή Μασάζ Beper		18,836	33,812	€31.26	1.80	2.60%	595	742	€0.04	878	790
>	Results from 2 ad sets		49,360 People	79,924 Total	€62.42 Total Spent	1.62 Per Person	1.63% Per Impressions	951 Total	1,155 Total	€0.05 Per Click	1,306 Total	1,203 Total

Image 9: Anti-cellulite Massage Device Ad sets and metrics

Blender Appliance campaign

The final advertised product from the same website (globalspot.gr) is the blender appliance. Again, the most parameters in the ad set section in the Facebook ad creation tool remained the same with the ones set in the massage device. The difference in this ad is the people's interests that we selected, which were much more in number than in the previous products, since this appliance can be applied to many categories that pre-exist in Facebook's options menu (blender, cooking, healthy life, smoothies, juice etc). These categories, as well as the product's specification may lead to quite many utilizations, therefore we created a carousel of five images, so to provide with a few suggestions in each card description regarding its potentials. Image 10 illustrates the major metrics that were produced after the end of the blender campaign.

	Name		Reach	Impressions	Amount spent	Frequency	CTR (all)	Unique clicks (all)	Link clicks	CPC (all)	Clicks (all)	Page engagement
>	InstaStories Blender Touch		51,055	77,691	€31.30	1.52	0.63%	427	448	€0.06	493	448
>	Facebook Blender Touch		16,924	28,847	€30.07	1.70	3.60%	794	835	€0.03	1,038	886
>	Results from 2 ad sets		67,551 People	106,538 Total	€61.37 Total Spent	1.58 Per Person	1.44% Per Impressions	1,216 Total	1,283 Total	€0.04 Per Click	1,531 Total	1,334 Total

Image 10: Blender appliance Ad sets and metrics

Earplugs October campaign

The earplugs were the only product that we repromoted in October. In the ad set implementation, we used the same saved audience (age and interests) that we created in the first earplug campaign in July. We kept all other parameters intact in the ad set menu. As we will present later in the ad analysis, we planned to run our ads on a specific timetable in order to enhance performance and minimize costs, however this option was not available to our Facebook account due to previous budget selection. Once more, we chose the carousel format in our ad design, although we reduced the number of cards

from seven to five, in order to provide a more compact and user-friendly ad, without redundant images that may lead to unpleasant results. The main metrics that our final campaign generated, can be shown in Image 11 below.

Name		Reach	Impressions	Amount spent	Frequency	CTR (all)	Unique clicks (all)	Link clicks	CPC (all)	Clicks (all)	Page engagement
> FaceBook		105	112	€0.21	1.07	2.68%	2	3	€0.07	3	3
> InstStories		361	389	€0.20	1.08	1.80%	6	7	€0.03	7	7
> Results from 2 ad sets		466 People	501 Total	€0.41 Total Spent	1.08 Per Person	2.00% Per Impressions	8 Total	10 Total	€0.04 Per Click	10 Total	10 Total

Image 11: Earplugs Ad sets and metrics

3.2.2 Google Ads

The platform that our ads were running simultaneously with Facebook ads, was Google Ads. The concept remains the same, however the implementation process is slightly different than on Facebook's advertising tool. For each promoted product, we constructed text ads that would run in every available network, such as Google's search sites, search partners and display network (YouTube, Gmail, Blogger etc), since we aimed to reach as much people as possible in order to increase traffic to our websites[28]. The number of text ads that we implemented was three in each product, in order to have alternatives, in case one or more of them had a poor performance.

Earplugs July campaign

In the earplugs campaign, we created a responsive search ad, an expanded text ad and an expanded dynamic search ad. In responsive search ads, the ads we built can be readjusted in order to display more text and more messages to our clients that are relevant to their search terms. This can be done by entering numerous different headlines and descriptions during the creation process and then, over a period, Google Ads will try alternative combinations so to identify which combinations achieve the best performance. This ad content flexibility may help approach more potential customers, since there are more opportunities that their search queries will be matched and therefore enhance the performance of our campaign [29]. The core of expanded text ads is ordinary text ads, however there are some dissimilarities. As the title suggests, they are an expanded form of text ads, since they have additional fields, such as three headlines, two descriptions each with up to 90 characters to utilize, as well as two new optional URL path fields. Moreover, they provide a preview in desktop and mobile format of the ad, during the setting up process [30]. In addition, expanded dynamic search ads originate from dynamic search ads. This type of ads automatically creates the display URL and the text of

the headline of our ad, as well as may assist us on the keyword selection process. The automation procedure uses our website's content in order to generate the aforementioned elements, as also the landing pages. Dynamic search ads require from the ad designer a creative description in order to maintain their ads relevant and time efficient [31]. We ran our ads for every hour of the day, targeting the audience of Greece, having as a campaign goal the increment of our website's traffic (earhealth.gr), using the maximize clicks bid strategy. Image 12 provides the overview after the end of the campaign.
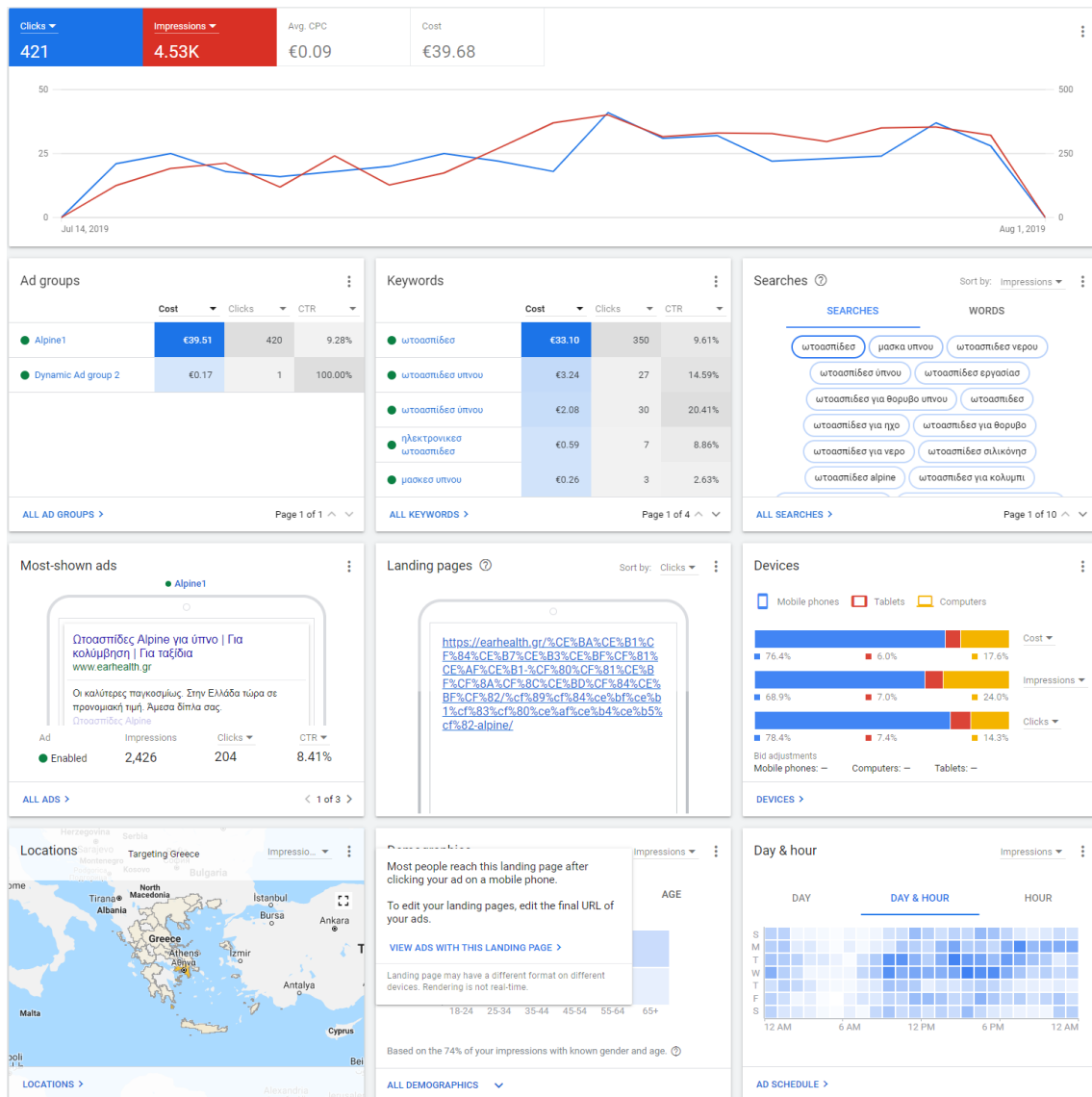

Image 12: Earplugs Ads July campaign overview

The keywords of our ads play a crucial role. It is extremely important that we use the proper keywords, since they can assist us on displaying our ad on the audience that we focus. Our main goal is to succeed in matching our keywords with the potential search terms that a client would use while seeking for our products or services [32]. We will

elaborate further about keywords on the analysis section. Analogous to Facebook Ads, the target audience is also of great importance. We decided to keep all the demographic groups available in Google Ads. We utilized the demographic information regarding age and gender. The provided age groups were "18-24", "25-34", "35-44", "45-54", "55-64", "65 or more" and "unknown". The gender demographic category includes "male", "female" and "unknown". The "unknown" value in demographics, refers to those people that Google can not deduce or holds no information about their age, gender, parental status or household income. We did not deselect "unknown", since it would broaden our relatively limited targeted audience [33]. As far as devices are concerned, we did not exclude any device from the following categories: mobile phones, computers and tablets. The exact same procedure was followed in the rest of our campaigns.

Posture Corrector campaign

By the same token, we kept the same configurations for the ad schedule, demographics and devices for this product, however we modified the keywords in order to meet the users' search criteria. Image 13 presents the overview for this ad.
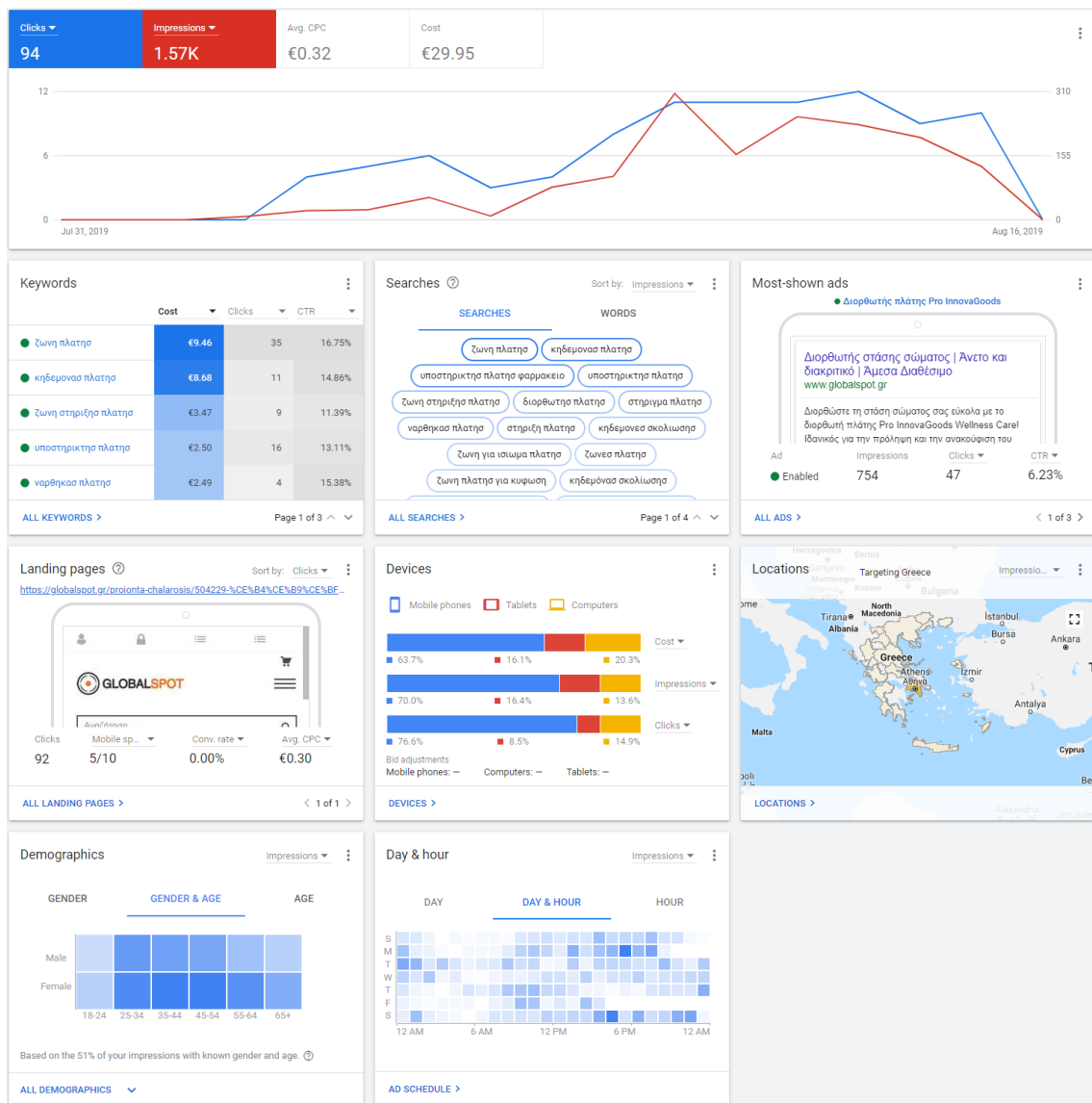
Image 13: Posture Corrector campaign overview

Anti-cellulite Massage Device campaign

The same conceptual pattern was also followed for this specific commodity, undergoing the appropriate adjustments in keywords and ad texts, in order to match the product characteristics. In Image 14, the overview of this campaign is portrayed.
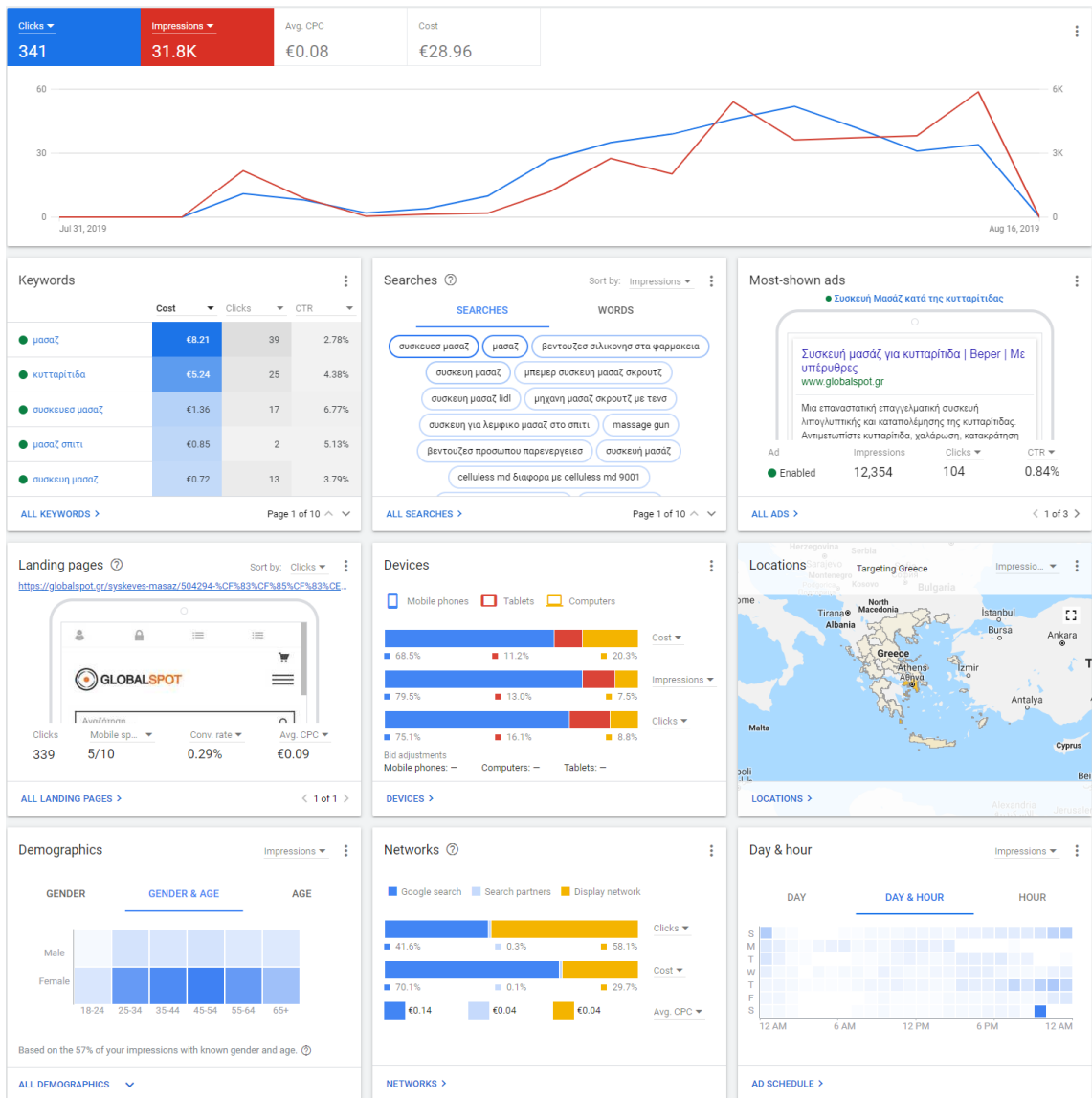
Image 14: Anti-cellulite Massage Device campaign overview

Blender Appliance campaign

Once more, we kept the majority of the configurations intact, while performing the corresponding alternations for the suitable keywords. Image 15 depicts the overview after the ads were finished delivering.
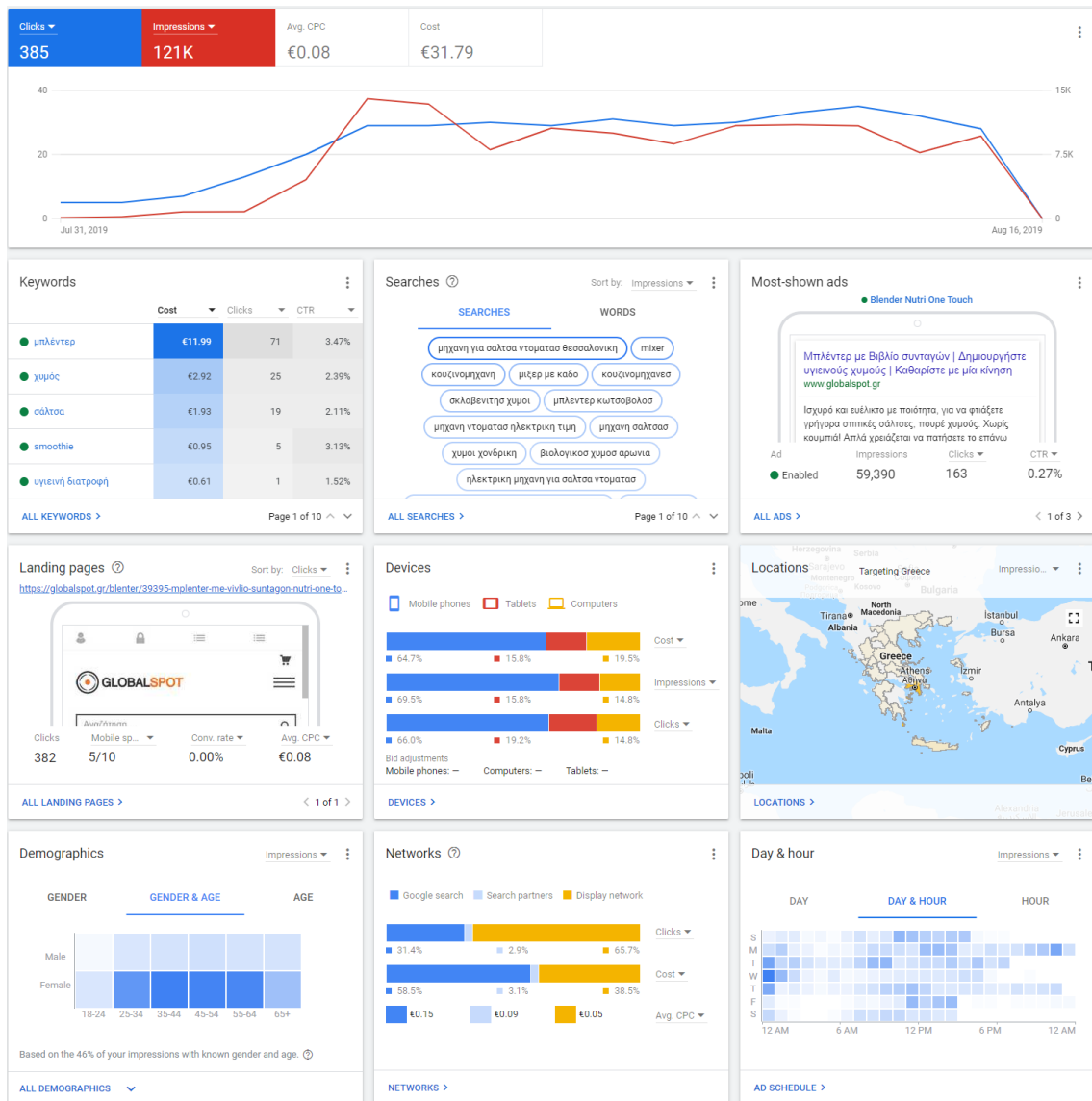
Image 15: Blender Appliance campaign overview

Earplugs October campaign

Finally, on this repromoted campaign, we used the core of the first template which was used in July, having some minor modifications, such as removing an ad type and adding a few more keywords in the corresponding implementation stage. Image 16 displays the earplugs campaign results for October.
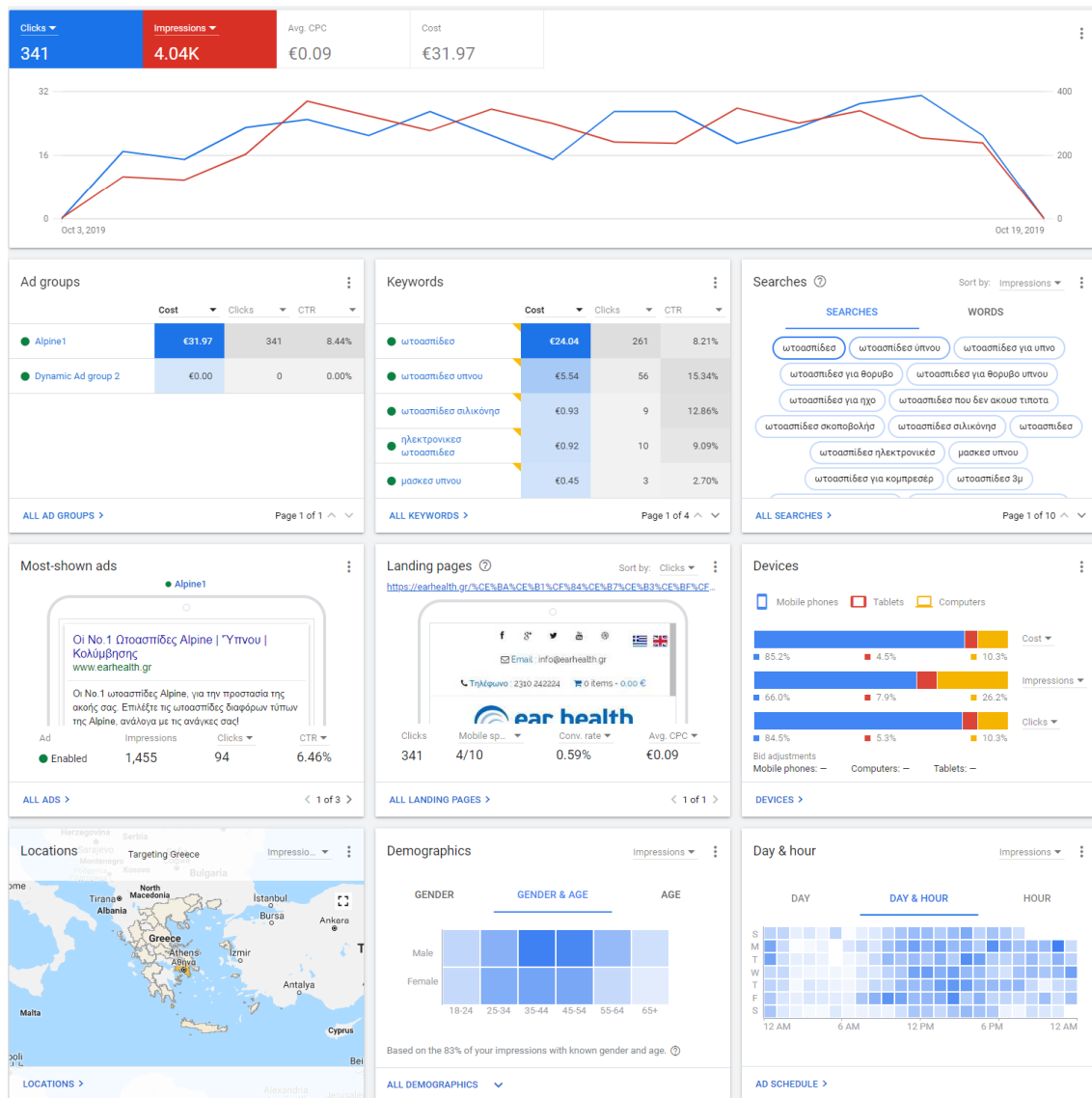
Image 16: Earplugs October campaign overview

3.3 Definitions

In this part of the thesis, we will provide some essential definitions briefly, that we will mostly make use of, during our data analysis. Since we implemented our ads in Facebook and Google Ads, these two will be the main references regarding the clarification of the necessary terms.

Organic search result

The term organic search result defines as the listings that are displayed on a search engine after a users' relevant query. In our case, we focused on Google's search engine. Organic search is unpaid, while non-organic search are paid advertisements and they can be distinguished by the "Ad" box feature that they possess. Furthermore, organic

search results can be of assistance by analysing them and extracting new keywords for our advertisements [34].

Keywords

Keywords are words or small phrases that provide a description of our product. They are of major importance, since we can decide the time and place that our ads will display. High-quality and relevance are the most significant features in the keywords selection process, as they are responsible for reaching potential customers. When a user performs a Google search, our ad's keywords are compared to the user's search terms and in case they are relative, our ad will appear in their search results page. Moreover, keywords are a way to assist Google to place our ad in a website with content relative to our ad, in their Google Network. On top of that, a proper keyword list may boost our ad efficiency, while lowering our costs [35].

Ad Group

An ad group is a set of one or more advertisements that focus on similar targets. Each campaign consists of one or more ad groups and they can be utilized in order to distinguish products or service types [36].

Ad Rank

Ad Rank is a value which defines the position that our ad occupies among other ads in the search result page. It is estimated by a variety of factors, such us our bid amount, our auction-time ad quality (which consists of ad relevance, expected clickthrough rate and landing page experience), the Ad Rank thresholds, the user's location and their device, the search terms, the competitors' ads etc. However, Google's algorithm favours ads that utilize extremely relevant keywords, as far as their position in the results page is concerned. The Ad Rank estimation process repeats every time our ad is qualified to be displayed and participates in an auction, so our ad's rank varies determined by our competitors, the user's search term and our ad's quality at that specific time [37].

Ad Rank thresholds

Ad Rank thresholds are defined as the reserve price for our advertisement. In the unfortunate case our bid is below this threshold, our ad will not be displayed after a user's search query. Additionally, if our competitors are ineligible to be displayed, the reserve price is the amount of money that we will be charged for the click. Similar to Ad Rank, Ad Rank thresholds is a process that occurs in each auction and takes into account a variety of factors in order to compute their thresholds value. A major factor is our ad qual-

ity, since Google aims to provide high quality ads for its users, therefore increasing the threshold for ads with poor quality. Ad position plays an important role too; the higher the position of an ad in the results page, the higher the reserve price. This action increases the possibilities of higher quality ads in the top places of the page after a user's search. Location also affects the thresholds, considering that they differ from country to country and from device to device (smartphones, desktop computers etc). On top of that, the topic and the context of the query may influence thresholds too. A great example provided by Google is that thresholds for searches affiliated with weddings, may be different than searches for basket-weaving classes. All these factors play an invaluable role that prioritizes users' quality experience and advertisers' bids [38].

Clickthrough Rate (CTR)

Clickthrough rate is a ratio that indicates how often users that see our ad they finally chose to click it. This metric can be used in order to estimate the performance of our keywords and ads. More precisely, it is the number of clicks that our ad receives, divided by the number of times it is displayed to a user:

$$CTR = clicks \div impressions$$

For example, 5 clicks and 100 impressions = 5% CTR. A high value of CTR indicates that our ad is more likely to be clicked after a user is performing a search, using our selected ad keywords. Furthermore, a fair CTR is relative to the product that is advertised, and on which networks the advertisement takes place. CTR can be used in order to estimate the performance of ads and keywords so to proceed with future improvements if necessary. It is strongly recommended that keywords and ads have a strong relation among them and the business that they focus. Therefore, it is more likely that a potential customer will click on the ad after searching our specific keywords that represent our business [39].

Cost-per-click (CPC)

Cost-per-click (CPC) is the way we are charged for every click that a user performs after viewing our ads. In case of CPC bidding campaigns, it is necessary to define a maximum cost-per-click bid ("max. CPC"), meaning that this is the maximum amount of money that we are offering to pay for a click on our ad. In general, the max. CPC is the upper limit of the cost of a click. However, in most cases the final cost for a click is less than the max. CPC, which is referred to as actual CPC [40].

Actual Cost-per-click

Actual cost-per-click (actual CPC) is the amount of money we are charged for a click that was performed by a user. It is a common phenomenon that we are often charged less than our maximum cost-per-click (max. CPC) bid, which is the highest charge for a click. This occurs due to the Google Ads auction procedure, in which we simply pay the minimal amount of money (our minimum bid) required to bypass the Ad Rank threshold and defeat our competitor's Ad Rank that is right below us. In case there are no competitors immediately below us, we are only charged with the reserve price. However, in some cases, our actual CPC might surpass our max CPC. This may happen if we have enabled the enhanced CPC option or we have set a bid adjustment [41]. Enhanced CPC automatically modifies our manual bids for clicks that may potentially result in a sale or a conversion to our website [42]. Bid adjustments enables us to display our ads in a mutable frequency, depending on time, location and users' queries [43].

Auction

Auction is the course of action that is triggered when users perform a Google search. This set of actions is responsible for which ads will display for that specific user defined search and in which arrangement they will appear on the search results page. It is also responsible for the case of the total absence of ads on the page. If an ad is qualified to be shown for a search, it undergoes the ad auction process. The auction decides whether the ad will appear or not, as well as in which ad position will appear on the result page.

The auction process includes the following steps:

1. When a user submits a google search, Google Ads selects all ads that have the same keywords as the ones in the search.
2. From the selected ads, Google Ads disregards any that are not qualified, for example, ads that are specified for a different country/region or are rejected for meeting the policy violation criteria.
3. From the ads that remain, the ones with an adequately high Ad Rank may be displayed.

The image provided by Google (Image17) depicts this process.

Image 17: The steps of an Auction [44]

Additionally, an important issue is that even in the case of a higher bid of a competitor, our ad may still receive a higher position in the search page (at a lower price) as long as it includes extremely relevant keywords, which reflects the quality of our ad. However, the auction procedure starts anew every time the user searches something on Google. Therefore, there is not a standard ad position on the page for every auction, since the competition fluctuates [45].

Conversion

A conversion can be defined as the countable action that someone performs when interacts with an ad, for instance clicks on a text ad or views a video ad and then they are prompted to complete an extra action that is specified by us, such as placing an order, make a phone call to our business, sign-up and so on [46].

Interactions

As interactions we define the primary action performed by a user, related with the form of the ad. For example, for text and shopping ads, interactions include clicks and swipes. In the same context, views are the analogy for video ads, phone calls for call extensions, etc [47].

Impressions

The term impression describes the frequency that our ad is displayed to users. It is a well-spread metric that is used widely in the online marketing industry [48]. It adds up every time our ad is displayed on a search result page, on Facebook News Feed, on Instagram stories, or on a different website on the Google Network. In general, for every time our ad is shown, it is counted as one impression [49].

Return on Investment (ROI)

Return on investment describes the actual profit that we achieved from our ads, taking into consideration the amount of money that was spent on the ads. In order to compute

ROI, we take the revenue from our ads, subtract our total costs and then divide by our total costs, as can be observed by the following formula:

$$ROI = (Revenue - Cost\ of\ goods\ sold)\ /Cost\ of\ goods\ sold$$

ROI is a vital metric for advertisers, since it depicts the influence and the success of our ads on the business. ROI can be tracked by Google Analytics, which is the free tool that we used in this dissertation [50].

Reach

The term reach represents the number of users that saw our ads at least one time. This metric differs from impressions, which may contain numerous views of our ad by the same audience. During an ad campaign, reach provides us with an estimation regarding the number of users that viewed our advertisement. It is probable that even though a user sees our ad, they may not click on it, however they may interact with our business after the view of the ad. Some main factors that have an impact on reach, are our budget, bid and the audience that we focus on [51].

Frequency

Frequency declares the average number of times that every single user viewed our ad. This metric assists us on raising awareness and repeating our ad's message on a specific group of people. On the other hand, we should keep an eye on frequency, in order to avoid showing our ad to the same people multiple times. This issue may lead to audience exhaustion, resulting in poor ad performance. The computation of frequency derives from the metrics of impressions and reach, described by the following formula [52].

$$Frequency = Impressions\ /\ Reach$$

Link Clicks

Link clicks is the sum of clicks on links that were placed in our ad and that they directed users on different Facebook pages or links that lead outside Facebook, such as e-shops, playable experiences, websites, video hosts (e.g. YouTube), clicks to call, Instagram profiles, etc. This metric provides an aspect about how much our audience interests about our ad and is a way to rate the success of our ad campaign [53].

Page Engagement

Page Engagement defines as the sum of the actions performed on our Facebook Page and its posts, by our ad audience, that are ascribed to our ads. This is a metric that indi-

cates the relativity of our ad, regarding our targeted group of people. It is calculated be counting the interactions between users and our Facebook Page such as liking a post or our page, clicking a link that we placed, etc [54].

Bounce Rate

The term bounce refers to a single-page session on a website. In Google Analytics, a bounce is computed precisely as a session that activates only a single request to the Analytics server, for example when a user opens a single page on our site and then exits without performing any other actions or requests to the Analytics server during that session. In simple words, a bounce occurs whenever a user enters our website and then abstains from any other interaction, such as navigating through our site or clicking on the elements of our webpages [55].

Attribution Window / Conversion Window

Attribution window and Conversion window are similar terms, used by different platforms. In Facebook, an attribution window is the timeframe that intervenes between the time a user viewed or clicked our ad and the time that performed an action. As an action we count clicks and views of our ad. The default value of attribution window is set to 1-day views and 28-days clicks [56], which we used in our campaigns. Correspondingly, Google utilizes in its metrics Conversion window, which defines it as '*the number of days after a user's click, during which a conversion will be recorded*' [57]. The default value is 30 days, meaning that each conversion that occurs within that period after a click, this conversion will be aggregated to the metrics. Once more, we chose to keep the default value for this attribute in our Google ads.

4 Discussion

In the following sections we are going to analyse the data that were generated by our advertisements. This analysis is based on Google Ads, Facebook Ads and Google Analytics of the earplugs, posture corrector, anti-cellulite massage device and blender appliance products. Subsequently, we will present our visualizations that were implemented with Microsoft's Power BI tool after aggregating our data in Excel spreadsheets.

4.1 Data Analysis

In this segment, we will display our findings regarding the performance of our campaigns. However, we faced an obstacle during our investigation of the products that are part of globalspot.gr, due to its deficient implementation. Therefore, Google Analytics did not work as intended for posture corrector, massage device and blender, so we relied on Google and Facebook ads tools for their analysis.

4.1.1 Earplugs July campaign

For this first campaign, the amount that was spent in Facebook Ads was 0.18€ and in Google Ads 39.68€ summing to a total of 39.86€. This budget led to 383.9€ in earplugs sales, according to the data that we manually collected from earhealth.gr.

Facebook Ads

For this campaign, we implemented two ad sets, each having an ad, so to run a Facebook and an Instagram ad, in order to increase traffic to our website. Our daily budget was set to 2.00€, the target group was residents of Greece of age 18-65+, interesting in sleep, music, swimming or traveling. These options led to an estimation of 4,700,000 people eligible to view our ads in their Facebook News Feed, however Facebook's algorithm estimated a potential reach in our audience of 762 to 2.2K people and 18 to 52 landing page views, due to our limited budget. The same estimations for the Instagram ad were 3,300,000 people, with a potential audience of 2.5K to 7.2K and 20 to 57 landing page views. Furthermore, we did not exclude any devices in both ads, so to keep our audience broad. However, these estimations were not accurate, as can be seen, in Image

7. It is obvious that this campaign had a poor performance, considering the low numbers. More specifically, Instagram ad was displayed 194 times and had zero clicks, while Facebook had 144 impressions and 9 clicks, resulting in 6.25% CTR. If we consider that both ads spent the same amount of money of 0.09€, Facebook ad outperformed Instagram ad. In the demographics section, as far as Facebook is concerned, the male audience of the age groups 45-54 and 55-64 shared the main reach volume. The female audience that saw our ad at least once was 25% of the total audience and their age group with the most impressions was the 55-64. Additionally, the first age groups displayed insignificant results as Image 18 depicts below.
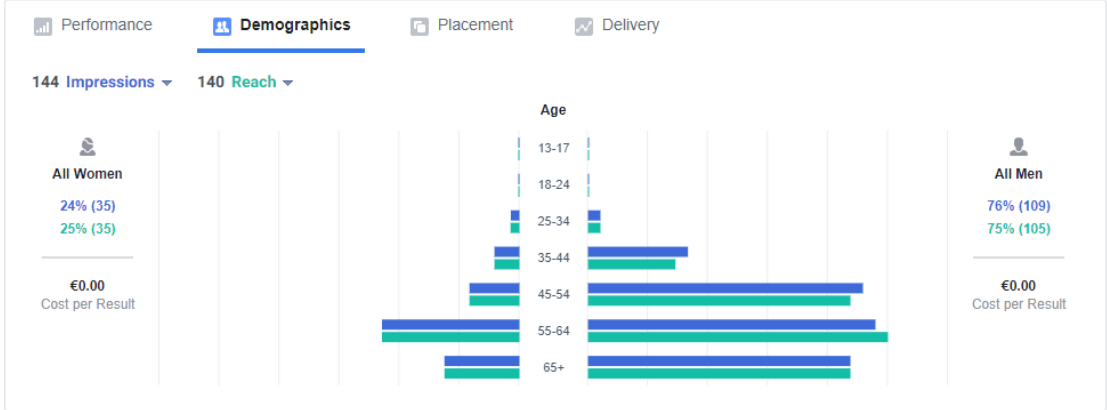

Image 18: Earplugs Facebook ad Demographics

On the other hand, this picture is reversed in our Instagram ad. Not only the female audience prevails in impressions, but also the younger age groups have the most views compared to the age groups of 45 years old and above. This can be explained, since the majority of Instagram users belong to the age groups of 18-24 and 25-34 and female audience holds the 51% of the total number of users [58, 59]. Image 19 portrays these metrics.

Image 19: Earplugs Instagram ad Demographics

The total amount spent for Facebook and Instagram ads was 0.18€, which was much less than the expected value, considering our 2.00€ daily budget for each ad and the duration of 17 days. The conclusion for these ads is that they did not deliver and need further analysis in order to discover the possible implementation flaws.

Google Ads

In the Google Ads platform, we implemented a responsive search ad, an expanded text ad and an expanded dynamic search ad, eligible for all devices, as well as for search and display networks, to increase website traffic and maximize clicks. The responsive search ad achieved the most clicks (216) with an average 0.09€ CPC and a highly satisfying CTR of 10.28%, costing us 20.23€ in total. The expanded text ad also displayed remarkable results with 204 clicks, 2,426 impressions and 8.41% CTR, while the dynamic ad had 1 click and 1 impression, however it costed 0.17€ per click. According to our data, this ad had a single click on the 16th of July and then Google's algorithm stopped to serve it, therefore the 1 impression. The main ad metrics are presented in Image 20.

		Ad	Ad group	Status	Ad type	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	●	Οι No.1 Ωτοασπίδες Alpine	Ύπνου	Κολύμβησης +6 more www.earhealth.gr Οι No 1 ωτοασπίδες Alpine για να προστατεύσετε την ακοή σας. Επιλέξτε τις... View assets details	Alpine1	Campaign paused Approved (limited): Punctuation and symbols	Responsive search ad	216	2,102	10.28%	€0.09	€20.23	1.00	€20.23	0.46%
☐	●	Ωτοασπίδες Alpine για ύπνο	Για κολύμβηση	Για ταξίδια www.earhealth.gr Οι καλύτερες παγκοσμίως. Στην Ελλάδα Τώρα σε προνομιακή τιμή. Άμεσα δίπλα σας.	Alpine1	Campaign paused	Expanded text ad	204	2,426	8.41%	€0.09	€19.28	22.00	€0.88	10.78%
☐	●	[Dynamically generated headline] [Dynamically generated display URL] Οι No 1 ωτοασπίδες Alpine για να προστατεύσετε την ακοή σας. Το όνομα της = Εγγύηση. Τώρα μπορείτε να έχετε έναν ξεκούραστο ύπνο ή ταξίδι, μια ασφαλή...	Dynamic Ad group 2	Campaign paused	Expanded dynamic search ad	1	1	100.00%	€0.17	€0.17	0.00	€0.00	0.00%
		Total: All but removed ads ⓘ				421	4,529	9.30%	€0.09	€39.68	23.00	€1.73	5.46%
✓		Total: Campaign ⓘ				421	4,529	9.30%	€0.09	€39.68	23.00	€1.73	5.46%
													1 - 3 of 3

Image 20: Earplugs Google ads and metrics

For this campaign we utilized 17 keywords in total, that we assumed were conceptually similar to our product, so to potentially fulfill as much related search queries as possible. The keyword with the most clicks was "ωτοασπίδεσ" which is the translation for earplugs and it is an expected outcome. It scored 350 clicks, 3,641 impressions, with 9.61% CTR, an average 9 cent per click and a total cost of 33.10€. However, the best CTR achieved by a variation of the same two words for sleep earplugs ("ωτοασπίδεσ ύπνου" and "ωτοασπιδεσ υπνου"). Their only difference was the acute accent that was used in the first phrase, meaning that our audience used this while performing their Google search. Nevertheless, from the 17 total keywords, only 7 of them managed to obtain at least 1 click. This is an interesting fact, considering that the number of key-

words was fairly low and related to the product's description. The major metrics of the keywords tab are shown in Image 21.

Keyword	Ad group	Status	Policy details	Final URL	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
ωτοασπίδεσ	Alpine1	Campaign paused	Eligible	–	350	3,641	9.61%	€0.09	€33.10	23.00	€1.44	6.57%
ωτοασπίδεσ ύπνου	Alpine1	Campaign paused	Eligible	–	30	147	20.41%	€0.07	€2.08	0.00	€0.00	0.00%
ωτοασπίδεσ υπνου	Alpine1	Campaign paused	Eligible	–	27	185	14.59%	€0.12	€3.24	0.00	€0.00	0.00%
ηλεκτρονικεσ ωτοασπίδεσ	Alpine1	Campaign paused	Eligible	–	7	79	8.86%	€0.08	€0.59	0.00	€0.00	0.00%
μασκεσ υπνου	Alpine1	Campaign paused	Eligible	–	3	114	2.63%	€0.09	€0.26	0.00	€0.00	0.00%
μασκα υπνου	Alpine1	Campaign paused	Eligible	–	2	242	0.83%	€0.07	€0.13	0.00	€0.00	0.00%
μάσκα ύπνου	Alpine1	Campaign paused	Eligible	–	1	106	0.94%	€0.11	€0.11	0.00	€0.00	0.00%
ωτοασπίδεσ για κολυμβηση	Alpine1	Campaign paused	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
ωτοασπίδεσ επαγγελματικεσ	Alpine1	Campaign paused	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
ωτοασπίδεσ εργασίασ	Alpine1	Campaign paused	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
ωτοασπίδεσ τιμη	Alpine1	Campaign paused	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
ωτοασπίδεσ ηχου	Alpine1	Campaign paused	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
ωτοασπίδεσ σκοποβολησ	Alpine1	Campaign paused	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
ωτοασπίδεσ σκοποβολησ ηλεκτρονικεσ	Alpine1	Campaign paused	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
ωτοασπίδεσ alpine	Alpine1	Campaign paused	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
ωτοασπίδεσ μουσικησ	Alpine1	Campaign paused	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
ωτοασπίδεσ νερού	Alpine1	Campaign paused	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
Total: A...					420	4,514	9.30%	€0.09	€39.51	23.00	€1.72	5.48%
Total: C...					421	4,529	9.30%	€0.09	€39.68	23.00	€1.73	5.46%

Show rows: 50 · 1 - 17 of 17

Image 21: Earplugs Google ads Keywords list, sorted by clicks in descending order

In the demographics tab, we observe that the age group with the most clicks is the 45-54 group, which were 91, with 9.87% CTR, 922 impressions and cost 8.44€. In total, every group achieved a high CTR between 8% and 12%, nonetheless the unknown group had the lowest CTR of 7.44%, while 18-24 group scored 12.25% CTR. Image 22 shows the age metrics.

Age	Ad group	Status	Bid adj.	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
45 - 54	Alpine1	Campaign paused	–	91	922	9.87%	€0.09	€8.44	0.00	€0.00	0.00%
35 - 44	Alpine1	Campaign paused	–	86	990	8.69%	€0.10	€8.91	18.00	€0.50	20.93%
Unknown	Alpine1	Campaign paused	–	75	1,008	7.44%	€0.09	€6.55	2.00	€3.27	2.67%
25 - 34	Alpine1	Campaign paused	–	68	701	9.70%	€0.10	€6.68	0.00	€0.00	0.00%
55 - 64	Alpine1	Campaign paused	–	45	450	10.00%	€0.09	€4.07	2.00	€2.04	4.44%
18 - 24	Alpine1	Campaign paused	–	31	253	12.25%	€0.09	€2.64	1.00	€2.64	3.23%
65+	Alpine1	Campaign paused	–	24	204	11.76%	€0.09	€2.22	0.00	€0.00	0.00%
Unknown	Dynamic Ad group 2	Campaign paused	–	1	1	100.00%	€0.17	€0.17	0.00	€0.00	0.00%
18 - 24	Dynamic Ad group 2	Campaign paused	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
25 - 34	Dynamic Ad group 2	Campaign paused	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
35 - 44	Dynamic Ad group 2	Campaign paused	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
45 - 54	Dynamic Ad group 2	Campaign paused	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
55 - 64	Dynamic Ad group 2	Campaign paused	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
65+	Dynamic Ad group 2	Campaign paused	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
Total: Ages				421	4,529	9.30%	€0.09	€39.68	23.00	€1.73	5.46%
Total: Other				0	0	–	–	€0.00	–	–	–
Total: Campaign				421	4,529	9.30%	€0.09	€39.68	23.00	€1.73	5.46%

Show rows: 50 · 1 - 14 of 14

Image 22: Google Ads Earplugs Demographics Age

In the gender tab, there is a major difference between male and female audience regarding clicks. Men had 224 clicks, 2,080 impressions and 10.77% CTR, while women had 142, 1,586 and 8.95% accordingly. The unknown group scored 55 clicks and 863 impressions in total. Image 23 describes the above statistics.

		Gender	Ad group	Status	Bid adj.	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	●	Male	Alpine1	Campaign paused	– ⌧	224	2,080	10.77%	€0.10	€21.48	20.00	€1.07	8.93%
☐	●	Female	Alpine1	Campaign paused	– ⌧	142	1,586	8.95%	€0.09	€13.10	2.00	€6.55	1.41%
☐	●	Unknown	Alpine1	Campaign paused	– ⌧	54	862	6.26%	€0.09	€4.93	1.00	€4.93	1.85%
☐	●	Unknown	Dynamic Ad group 2	Campaign paused	– ⌧	1	1	100.00%	€0.17	€0.17	0.00	€0.00	0.00%
☐	●	Male	Dynamic Ad group 2	Campaign paused	– ⌧	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	Female	Dynamic Ad group 2	Campaign paused	– ⌧	0	0	–	–	€0.00	0.00	€0.00	0.00%
		Total: Genders				421	4,529	9.30%	€0.09	€39.68	23.00	€1.73	5.46%
		Total: Other				0	0	–	–	€0.00	–	–	–
		Total: Campaign				421	4,529	9.30%	€0.09	€39.68	23.00	€1.73	5.46%

Image 23: Google Ads Earplugs Demographics Gender

Valuable information about the most fruitful days of the week can be spotted in the ad schedule, in day tab. Wednesday had the most clicks and impressions as well as the third best CTR, while the top positions in this category are occupied by Thursday with 10.80% and Sunday with 10.19% CTR. These two days can be characterised by their high CTR and relatively low costs, which can be labelled as the most efficient, as can be seen in Image 24.

Day	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
Wednesday	87	935	9.30%	€0.08	€7.24	2.00	€3.62	2.30%
Tuesday	80	916	8.73%	€0.11	€8.43	0.00	€0.00	0.00%
Monday	67	746	8.98%	€0.12	€8.37	19.00	€0.44	28.36%
Friday	50	571	8.76%	€0.08	€4.11	1.00	€4.11	2.00%
Sunday	48	471	10.19%	€0.08	€3.67	0.00	€0.00	0.00%
Thursday	47	435	10.80%	€0.10	€4.50	0.00	€0.00	0.00%
Saturday	42	455	9.23%	€0.08	€3.36	1.00	€3.36	2.38%
Total: Campaigns ⑦	421	4,529	9.30%	€0.09	€39.68	23.00	€1.73	5.46%
Total: Campaign ⑦	421	4,529	9.30%	€0.09	€39.68	23.00	€1.73	5.46%

Image 24: Earplugs Google Ads days, sorted by clicks descending

As far as the devices are concerned, users show a distinct preference in mobile devices, such as phones and tablets. Mobile phones had the most clicks (330) with 3,122 impressions and 10.57% CTR, while tablets had the least clicks (31) and impressions (318) but that led to a 9.75% CTR which is a reasonably appropriate outcome. Despite the relatively mediocre number of clicks and impressions of computer devices, their average CPC (0.12€) resulted in 7.00€ cost which is a significant amount regarding our budget. On account of that, we should examine thoroughly the concept of excluding computers in future marketing attempts for this product. Image 25 displays the devices results.

	Device	Level	Added to	Bid adj.	Ad group bid adj.	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	Mobile phones	Campaign	Alpine1	—⊠	None	330	3,122	10.57%	€0.09	€30.31	4.00	€7.58	1.21%
☐	Computers	Campaign	Alpine1	—⊠	None	60	1,089	5.51%	€0.12	€7.00	19.00	€0.37	31.67%
☐	Tablets	Campaign	Alpine1	—⊠	None	31	318	9.75%	€0.08	€2.37	0.00	€0.00	0.00%
	Total: Campai... ⑦					421	4,529	9.30%	€0.09	€39.68	23.00	€1.73	5.46%

Image 25: Earplugs Google Ads Devices

To summarize, our Google ads scored in total 421 clicks, 4,529 impressions, an average 9.30% CTR and costed 39.68€, which is an expected value since they ran for 17 days. According to the attribution model, during the attribution window there were 21 earplug sales which totalled the amount of 383.90€.

Google Analytics

In the Google Analytics tool, in the acquisition overview section, we can observe that organic search occupies the first place regarding users, having a bounce rate of 67%, while the paid search, which is essential for our campaign, occupied the second place, having a satisfying 42.96% bounce rate. Referral channels scored a 16.67%, having 3 out of the total 4 websites (alphaecommerce.gr, vrisko.gr, paypal.com, swisscows.com) a 0.00% bounce rate, meaning that their session was not a single-page session. Only alphaecommerce.gr had a 50.00% bounce rate, which approaches the normal values. On the other hand, social networks (Facebook & Instagram) had only 32 users and a high bounce rate of 71.43% which translates into poor performance, since users were not interacting with our website. Furthermore, our attempt proved to be promising, regarding the 974 new users that arrived at our e-shop via the 5 channels, as can be seen in Image 26.

		Acquisition			Behaviour		
		Users ↓	New Users	Sessions	Bounce Rate	Pages/Session	Avg. Session Duration
		974	974	1,223	57.40%	2.73	00:01:51
1	Organic Search	531			67.00%		
2	Paid Search	374			42.96%		
3	Direct	67			56.39%		
4	Social	32			71.43%		
5	Referral	6			16.67%		

Image 26: Earplugs Google Analytics, Acquisition overview

Examining the social networks, our unsatisfactory campaign in Facebook and Instagram is further confirmed by Google Analytics. Facebook achieved 29 new users, that initiated 48 sessions, which led to an unpleasant 70.83% bounce rate. Instagram had only 1

user that engaged with our website for a session, resulting in 100% bounce rate, as Image 27 depicts.

Social Network	Acquisition			Behaviour		
	Users	New Users	Sessions	Bounce Rate	Pages/Session	Avg. Session Duration
	32 % of Total: 3.29% (974)	30 % of Total: 3.08% (974)	49 % of Total: 4.01% (1,223)	71.43% Avg for View: 57.40% (24.44%)	1.98 Avg for View: 2.73 (-27.49%)	00:01:01 Avg for View: 00:01:51 (-44.62%)
1. Facebook	31 (96.88%)	29 (96.67%)	48 (97.96%)	70.83%	2.00	00:01:03
2. Instagram	1 (3.12%)	1 (3.33%)	1 (2.04%)	100.00%	1.00	00:00:00

Image 27: Earplugs Google Analytics, Social Networks

Regarding our Google ad campaign, analytics metrics match with the ones provided in Google ads tool. The additional data we acquire are the bounce rates and the average number of pages that users view during their session. More specifically, ad group Alpine1 scored a 39.04% bounce rate with 3.26 pages/session which is a more than acceptable outcome, meaning our ad group was successful. On the contrary, dynamic ad group 2, had 1 click and no pages/session with bounce rate 0.00%. The metrics are presented in Image 28 below.

Google Ads: Ad Group	Acquisition					Behaviour	
	Clicks	Cost	CPC	Users	Sessions	Bounce Rate	Pages/Session
	421 % of Total: 91.13% (462)	€39.68 % of Total: 75.62% (€52.47)	€0.09 Avg for View: €0.11 (-17.01%)	346 % of Total: 35.52% (974)	397 % of Total: 32.46% (1,223)	39.04% Avg for View: 57.40% (-31.98%)	3.26 Avg for View: 2.73 (19.48%)
1. Alpine1	420 (99.76%)	€39.51 (99.57%)	€0.09	346(100.00%)	397(100.00%)	39.04%	3.26
2. Dynamic Ad group 2	1 (0.24%)	€0.17 (0.43%)	€0.17	0 (0.00%)	0 (0.00%)	0.00%	0.00

Image 28: Earplugs Google Analytics, Ad groups

Moreover, in the source/medium submenu in traffic acquisition, which all sources and their components are presented more thoroughly, we notice that Google organic search holds the most users and sessions, having a 67.16% bounce rate, a relatively acceptable value, considering that our paid Facebook cpc with 28 users, scored 96.55% bounce rate and 5 seconds average session duration. Additionally, the longest session duration in average was 9 and a half minutes by paypal.com referral, having 16 pages per session and only 1 user. This is probably due to the fact that earhealth.gr accepts payments via PayPal, however this should not be considered as a referral website that promotes our e-shop. Image 29 presents each source more analytically.

Source/Medium	Acquisition			Behaviour		
	Users ↓	New Users	Sessions	Bounce Rate	Pages/Session	Avg. Session Duration
	974 % of Total: 100.00% (974)	975 % of Total: 100.10% (974)	1,223 % of Total: 100.00% (1,223)	57.40% Avg for View: 57.40% (0.00%)	2.73 Avg for View: 2.73 (0.00%)	00:01:51 Avg for View: 00:01:51 (0.00%)
1. google / organic	528 (52.12%)	509 (52.21%)	606 (49.55%)	67.16%	2.53	00:01:58
2. google / cpc	346 (34.16%)	337 (34.56%)	397 (32.46%)	39.04%	3.26	00:01:45
3. (direct) / (none)	67 (6.61%)	67 (6.87%)	133 (10.87%)	56.39%	2.44	00:02:08
4. facebook / cpc	28 (2.76%)	26 (2.67%)	29 (2.37%)	96.55%	1.17	00:00:05
5. m.facebook.com / referral	14 (1.38%)	13 (1.33%)	14 (1.14%)	85.71%	1.29	00:00:13
6. facebook.com / referral	12 (1.18%)	11 (1.13%)	15 (1.23%)	80.00%	1.27	00:00:02
7. l.facebook.com / referral	6 (0.59%)	5 (0.51%)	11 (0.90%)	54.55%	3.09	00:02:16
8. alphaecommerce.gr / referral	2 (0.20%)	0 (0.00%)	2 (0.16%)	50.00%	2.00	00:00:07
9. bing / organic	2 (0.20%)	2 (0.21%)	2 (0.16%)	0.00%	7.50	00:07:02
10. vrisko.gr / referral	2 (0.20%)	2 (0.21%)	2 (0.16%)	0.00%	5.00	00:01:20
11. business.facebook.com / referral	1 (0.10%)	0 (0.00%)	6 (0.49%)	33.33%	3.83	00:03:37
12. l.instagram.com / referral	1 (0.10%)	1 (0.10%)	1 (0.08%)	100.00%	1.00	00:00:00
13. paypal.com / referral	1 (0.10%)	0 (0.00%)	1 (0.08%)	0.00%	16.00	00:09:34
14. swisscows.com / referral	1 (0.10%)	1 (0.10%)	1 (0.08%)	0.00%	10.00	00:04:22
15. web.facebook.com / referral	1 (0.10%)	0 (0.00%)	2 (0.16%)	100.00%	1.00	00:00:00
16. yahoo / organic	1 (0.10%)	1 (0.10%)	1 (0.08%)	100.00%	1.00	00:00:00

Image 29: Earplugs Google Analytics, all traffic

4.1.2 Posture Corrector campaign

For this campaign, the total amount that was spent on ads was 89.89€, since Google Ads spent 29.95€ and Facebook Ads 59.94€. Considering that the confirmed total sales, that we manually extracted from globalspot.gr resulted in 139.3€, this campaign was unprofitable.

Facebook Ads

In the same way to the previous ad, we implemented a campaign with two ad sets and each ad set included an ad, in order to display them in Facebook News Feed and Instagram Stories. We did not exclude any devices, so our ads could appear in every device such as computers, mobile phones, etc. The options that we selected for our audience provided to Facebook's algorithm the data to produce the number of users that are eligible to see our ads, which was about 4,300,000 people, regarding the Facebook News Feed and 2,700,000 for the Instagram Stories. However, the estimated daily results were significantly less, due to our limited budget. For the Facebook ad, the reach was 849-2.5K people with 23-66 link clicks per day and for the Instagram ad, the reach was higher having 2.4k–6.9K people and 25-72 link clicks. As we can observe from Image 8, in general, the estimations showed to be true, having reached for Instagram 46,680 people with 360 clicks and for Facebook 28,344 people with 842 clicks. Additionally, we can see that Facebook's ad CPC costed 0.04€ with a CTR of 2.01%, while Insta-

gram's ad CPC was the double (0.08€) with a lower CTR 0.58%. Considering that both spent the same amount of money, Facebook's results are much more satisfying than Instagram's. Another significant fact, concerning the demographics, is that on Facebook's ad, males were the dominant gender holding 67% of the total audience. Moreover, the top position for both genders, regarding the age, occupied by the 55-64 age group. Looking at Image 30, we can assume that it was a justified action to exclude from our audience the age group of 18-24.
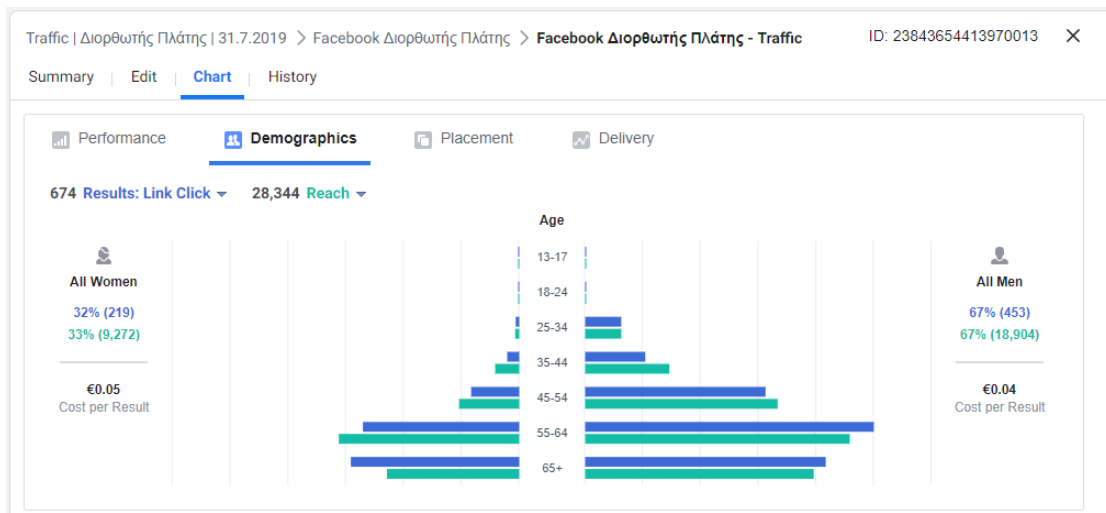
Image 30: Posture corrector Facebook ad Demographics

On the same token, on Instagram Stories ad, males are also the audience that prevails in statistic results. Of the total number of 46,680 users reached, 67% were men and from the total 354 people that clicked on our ad, 63% of them were also men. Furthermore, we can witness an intriguing fact on the age charts. On our Facebook ad, the age group with the best performance was the 55-64 for men and women, whereas in the Instagram ad we have a reversed effect. The 25-34 and 35-44 age groups for men achieved the top results, while for women the 35-44 and 45-54 age groups were the most efficient. According to these data and [58], we can deduct that Instagram is a platform that appeals to younger audiences. Therefore, we could have included the 18-24 age group for this ad during the implementation process. Image 31 provides the demographics representation that we discussed.
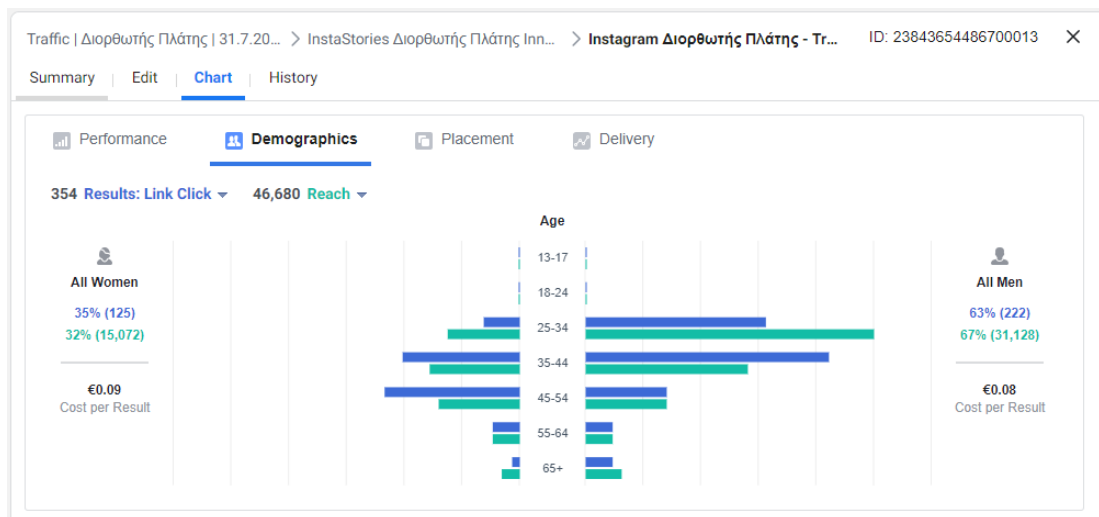
Image 31: Posture corrector Instagram ad Demographics

The total amount spent for both ads was 59.94€, which was a bit lower than the expected value, since our daily budget for each ad was 2.00€ and the duration of the promotions was 16 days.

Google Ads

For this product, we implemented three expanded text ads, which can be displayed in all devices such as desktop computers, mobile phones etc and in all display networks, such as YouTube, websites and so forth. We decided that the minimum number of ad versions would be three, in order to have alternatives in case an ad fails to deliver. As can be observed in Image 32, the first ad of the three in the presented rank, achieved 47 clicks and 754 impressions with an average 0.25€ per click (avg. CPC) and costed 11.72€ of the 29.95€ total campaign cost.

Image 32: Posture corrector Google ads and metrics

Google's advertising model promoted more this ad, since it deducted that we focused on saving our budget. The comparison of the avg. CPC among our three ads, 0.25€ with 0.39€ and 0.37€, supports this argument. However, the second ad achieved a better CTR of 7.67 % against the 6.23% of the first ad, due to the lower impressions and almost

identical number of clicks. Google computes CTR by dividing the number of clicks by the number of impressions [39]. As far as the keywords are concerned, we used the same approach as on the other campaigns. We utilized every keyword relative to our product, in order to cover a broader search spectrum. In the keywords tab, we can observe that the keyword with the best performance was "ζώνη πλάτης" with 35 clicks, 209 impressions, 16.75% CTR, costing an average 0.27€ per click, with a total cost of 9.46€. Image 33 portrays the keywords results.

		Keyword	Ad group	Status	Policy details	Final URL	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	●	ζωνη πλατησ	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	35	209	16.75%	€0.27	€9.46	0.00	€0.00	0.00%
☐	●	υποστηρικτησ πλατησ	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	16	122	13.11%	€0.16	€2.50	0.00	€0.00	0.00%
☐	●	κηδεμονασ πλατησ	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	11	74	14.86%	€0.79	€8.68	0.00	€0.00	0.00%
☐	●	ζωνη στηριξησ πλατησ	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	9	79	11.39%	€0.39	€3.47	0.00	€0.00	0.00%
☐	●	στηριγμα πλατησ	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	9	58	15.52%	€0.21	€1.87	0.00	€0.00	0.00%
☐	●	ζωνη για ισια πλατη	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	6	37	16.22%	€0.18	€1.07	0.00	€0.00	0.00%
☐	●	ναρθηκασ πλατησ	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	4	26	15.38%	€0.62	€2.49	1.00	€2.49	25.00%
☐	●	στηριξη πλατησ	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ορθοπεδική ζωνη πλατης	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ορθοπεδικα ειδη στηριξη πλατησ	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	γιλεκο στηριξησ πλατησ	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ανατομικη στηριξη πλατησ	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
		Total: A... ⑦					90	605	14.88%	€0.33	€29.54	1.00	€29.54	1.11%
∨		Total: C... ⑦					94	1,571	5.98%	€0.32	€29.95	1.00	€29.95	1.06%

Show rows: 50 ▾   1 - 12 of 12 |< < > >|

Image 33: Google ads Keywords list, sorted by clicks in descending order

The price for this specific keyword was moulded by the competitors that were offering the same product (using the same keyword in their ad) at the period that our ad was running. We can also notice that in the Google Ads keyword list, 5 keywords had no clicks and impressions, meaning that they were irrelevant or too general compared to the users' searches.

Regarding the demographics, female users had 33 clicks and 487 impressions, while male 33 and 346 respectively. This translates that male audience was more willing to click on our ad than female audience. However, the unknown audience had the most impressions (738) from both genders with only 23 clicks and the highest average CPC (0.35€), as can be seen next in Image 34.

		Gender ↑	Ad group	Status	Bid adj.	Clicks	Impr.	CTR	Avg. CPC	Cost
☐	●	Female	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	– ⊠	33	487	6.78%	€0.31	€10.24
☐	●	Male	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	– ⊠	38	346	10.98%	€0.31	€11.60
☐	●	Unknown	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	– ⊠	23	738	3.12%	€0.35	€8.10
		Total: Genders				94	1,571	5.98%	€0.32	€29.95
		Total: Other				0	0	–	–	€0.00
		Total: Campaign				94	1,571	5.98%	€0.32	€29.95

Image 34: Google Ads Posture Corrector Demographics Gender

In the same way, audience of unknown age occupies the first place in impressions (676), clicks (23) and cost (9.75€), but the last place in CTR (3.40%). Nevertheless, in the specified age groups, we have some interesting findings. The age group 18-24 had the highest CTR (12.86%) with 70 impressions and 9 clicks, as well as the 25-34 group with 19 clicks, 181 impressions and 10.50% CTR. Additionally, the age group 45-54 had 17 clicks, with 8.59% CTR which is also a remarkable result among the rest of the groups. It appears that this product is preferred by younger age groups, rather than individuals with age greater than 44. Image 35 that follows, summarizes the results.

		Age ↑	Ad group	Status	Bid adj.	Clicks	Impr.	CTR	Avg. CPC	Cost
☐	●	18 - 24	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	– ⊠	9	70	12.86%	€0.20	€1.83
☐	●	25 - 34	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	– ⊠	19	181	10.50%	€0.30	€5.71
☐	●	35 - 44	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	– ⊠	10	191	5.24%	€0.20	€1.99
☐	●	45 - 54	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	– ⊠	17	198	8.59%	€0.24	€4.07
☐	●	55 - 64	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	– ⊠	7	145	4.83%	€0.23	€1.60
☐	●	65+	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	– ⊠	9	110	8.18%	€0.55	€4.99
☐	●	Unknown	Διορθωτής πλάτης Pro InnovaGoods	Campaign ended	– ⊠	23	676	3.40%	€0.42	€9.75
		Total: Ages				94	1,571	5.98%	€0.32	€29.95
		Total: Other				0	0	–	–	€0.00
		Total: Campaign				94	1,571	5.98%	€0.32	€29.95

Image 35: Google Ads Posture Corrector Demographics Age

Another interesting fact about this campaign can be observed in the ad schedule tab of Google Ads, in the day submenu. The day with the most clicks was Tuesday with 18 clicks, having 284 impressions and the day with the less was Friday with 8 clicks and 105 impressions. Nonetheless, Friday had the second best CTR of 7.62%, following Sunday with 180 impressions, 15 clicks and the highest 8.33% CTR. On the other hand, Sunday costed us more than the other days (avg. CPC 0.41€, cost 6.12€), which is not an unexpected result, considering the outcome. However, Friday scored a rather satisfying CTR with minimum cost, which makes Friday a valuable asset in this campaign. Image 36 presents the days and their main metrics.

Day	↓ Clicks	Impr.	CTR	Avg. CPC	Cost
Tuesday	18	284	6.34%	€0.31	€5.61
Monday	16	273	5.86%	€0.37	€5.89
Sunday	15	180	8.33%	€0.41	€6.12
Thursday	14	208	6.73%	€0.28	€3.98
Wednesday	12	208	5.77%	€0.36	€4.28
Saturday	11	313	3.51%	€0.18	€2.03
Friday	8	105	7.62%	€0.25	€2.03
Total: Campaigns	94	1,571	5.98%	€0.32	€29.95
Total: Campaign	94	1,571	5.98%	€0.32	€29.95

Image 36: Posture corrector Google Ads days, sorted by clicks descending

In the devices tab, mobile phones and computers have almost identical CTR (6.55% and 6.54% respectively), however, mobile phones have the highest number of clicks (72) and impressions (1099) compared to computers (14 and 214) and tablets (8 and 258). It is obvious that mobile phones outweigh the other devices and should be considered a top priority in the ad implementation process. Their scores are depicted in Image 37.

	Device	Level	Added to	Bid adj.	Ad group bid adj.	↓ Clicks	Impr.	CTR	Avg. CPC	Cost
☐	Mobile phones	Campaign	Website traffic-Search Διορθωτής πλάτης	—	None	72	1,099	6.55%	€0.26	€19.07
☐	Computers	Campaign	Website traffic-Search Διορθωτής πλάτης	—	None	14	214	6.54%	€0.43	€6.07
☐	Tablets	Campaign	Website traffic-Search Διορθωτής πλάτης	—	None	8	258	3.10%	€0.60	€4.81
	Total: Campai...					94	1,571	5.98%	€0.32	€29.95

Image 37: Posture corrector Google Ads Devices

Concluding with this Google Ads campaign, our total impressions were 1571, the total number of clicks was 94, with a CTR of 5.98%. This is a fair percentage, considering that the third ad performed poorly, achieving only 2 clicks, having 230 impressions with an inadequate 0.87% CTR and a relatively high average CPC (0.37€). Considering the attribution model for this campaign, there were seven confirmed sales for the posture corrector product for a price of 19.9€ each, meaning a total of 139.3€.

4.1.3   Anti-cellulite Massage Device campaign

The total amount spent for this campaign was for Facebook Ads 62.42€ and for Google Ads 28.96€ which summed to 91.38€ in total. The data sales that we gathered manually for this product from globablspot.gr reached 134.50€ and the overall attempt was unprofitable, as our client concurred.

Facebook Ads

We used the same approach for this product, as for the ad sets and ads. Once more, we included all the devices in our placements section, to broad our audience. The targeted audience was women between 18 to 65+ years old, residents of Greece that interest in cosmetics or massage. These options assisted Facebook to generate an estimation of the size of our ad audience which reached up to 1,500,000 Instagram users and 2,000,000 Facebook users. In spite of that, our estimated daily results showed lower estimated numbers. For the Facebook News Feed ad, the reach was 740-2.1K people with 22-64 link clicks per day and for the Instagram Stories ad, the reach increased to 2.5k–7.3K people and to 25-72 link clicks. The results that are presented in Image 9 state that our Instagram ad reached 29,856 people with 428 clicks, while Facebook ad had 18,836 people with 878 clicks. In terms of efficiency, Facebook was the winner in this campaign. Scored a 2.60% CTR while Instagram ad had 0.93%, even though Instagram reached 9,000 people more than Facebook. In addition, Facebook's CPC (0.04€) had almost half the price than Instagram's CPC (0.07€). The demographics charts declare that the age groups 45-54 and 55-64 were the best two groups with the most link clicks and ad views, whereas the two low performers were the 18-24, 25-34 age groups, as can be seen in Image 38 below.
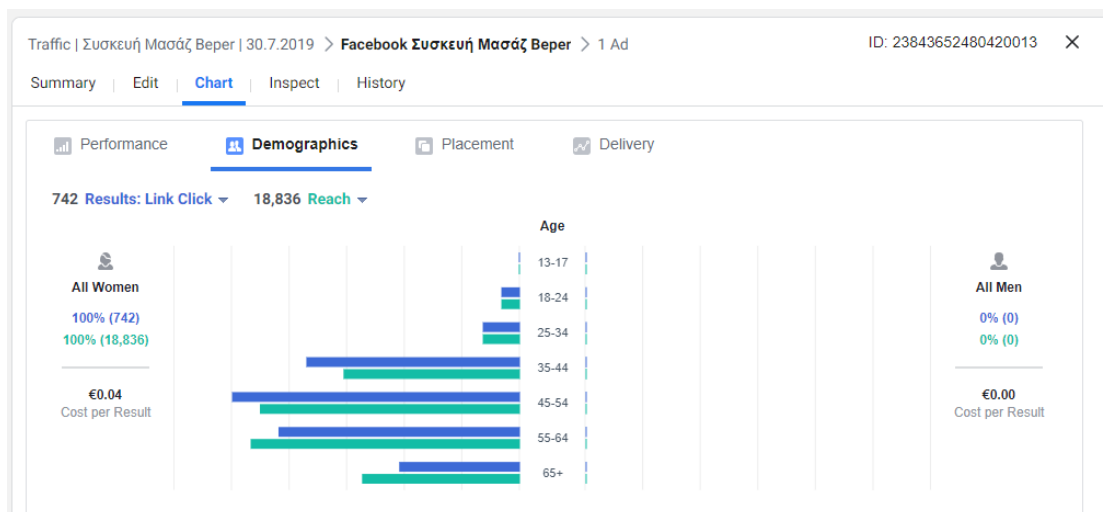
Image 38: Facebook Anti-cellulite massage device ad Demographics

These two groups could be excluded in a future remarketing Facebook campaign, so to distribute our budget to the remaining groups. On the other hand, this image is reversed in the Instagram ad, as the first four age groups performed relatively well, with the 25-34 group having the most clicks (112 link clicks) and the 18-24 the most views. Image 39 represents these results.
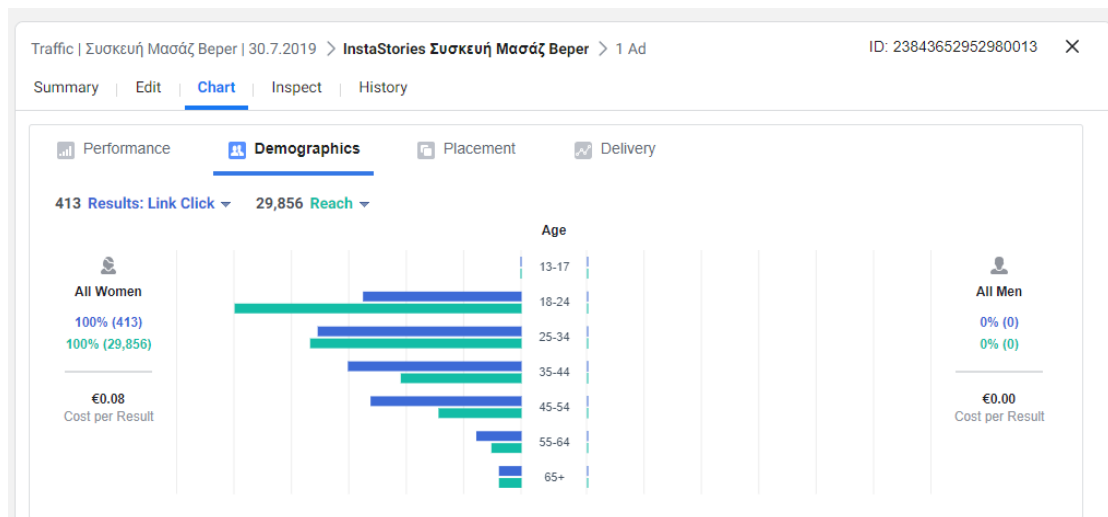
Image 39: Instagram Anti-cellulite massage device ad Demographics

The phenomenon regarding the large numbers of young users in Instagram, continues to apply in this campaign. The majority of Instagram users occupy the age groups 18-24 and 25-34, both groups had a total of 19,700 people, however they spent less on our promoted product compared to the outnumbered Facebook users.

The amount spent for both ad sets was 62.42€, which was an expected value for our 2.00€ per ad daily for 16 days.

Google Ads

In the same way to the posture corrector Google Ads campaign, we built three expanded texts ads, including all devices and audiences. As we can observe in Image 40, the top performed ad gathered 169 clicks, appeared 10,945 times, had a CTR of 1.54%, an average CPC of 0.10€ and costed 17.07€ of the total 28.96€ campaign cost.

		Ad	Ad group	Status	Ad type	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	●	Συσκευή μασάζ της Beper | Καταπολεμήστε την κυτταρίτιδα | Άμεση Παράδοση www.globalspot.gr Μια επαναστατική επαγγελματική συσκευή λιπογλυπτικής και καταπολέμησης της κυτταρίτιδας. Αντιμετωπίστε κυτταρίτιδα, χαλάρωση, κατακράτηση υγρών και τοπικό...	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Expanded text ad	169	10,945	1.54%	€0.10	€17.07	2.00	€8.54	1.18%
☐	●	Συσκευή μασάζ για κυτταρίτιδα | Beper | Με υπέρυθρες www.globalspot.gr Μια επαναστατική επαγγελματική συσκευή λιπογλυπτικής και καταπολέμησης της κυτταρίτιδας. Αντιμετωπίστε κυτταρίτιδα, χαλάρωση, κατακράτηση υγρών και τοπικό...	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Expanded text ad	104	12,354	0.84%	€0.05	€5.07	0.00	€0.00	0.00%
☐	●	Καταπολεμήστε την κυτταρίτιδα | Άμεσα Διαθέσιμο | Συσκευή μασάζ της Beper www.globalspot.gr Μια επαναστατική επαγγελματική συσκευή λιπογλυπτικής και καταπολέμησης της κυτταρίτιδας. Αντιμετωπίστε κυτταρίτιδα, χαλάρωση, κατακράτηση υγρών και τοπικό...	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Expanded text ad	68	8,549	0.80%	€0.10	€6.82	0.00	€0.00	0.00%
		Total: All but removed ads ⓘ				341	31,848	1.07%	€0.08	€28.96	2.00	€14.48	0.59%
⌄		Total: Campaign ⓘ				341	31,848	1.07%	€0.08	€28.96	2.00	€14.48	0.59%

Image 40: Anti-cellulite massage device Google ads and metrics

Examining Image 40, we notice that, the ad with the highest number of impressions had the lowest average CPC of 0.05€ with a 0.84% CTR and costed 5.07€. Considering that all our ads had the same description, but different headlines, we can speculate that the

specific headlines may have caused the poor performance of the second in number of clicks ad.

The sum of our keywords that this ad utilized was 74. However, only 27 of them rewarded us with at least 1 click, which translates in quite a few irrelevant keywords that may have affected our ad quality. These 27 keywords along with their metrics, are presented in Image 41 below.

		Keyword	Ad group	Status	Policy details	Final URL	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
		Total: All but removed keywor... ⓘ					143	4,088	3.50%	€0.14	€20.35	2.00	€10.18	1.40%
☐	●	μασαζ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	39	1,401	2.78%	€0.21	€8.21	2.00	€4.11	5.13%
☐	●	κυτταρίτιδα	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	25	571	4.38%	€0.21	€5.24	0.00	€0.00	0.00%
☐	●	συσκευεσ μασαζ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	17	251	6.77%	€0.08	€1.36	0.00	€0.00	0.00%
☐	●	συσκευη μασαζ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	13	343	3.79%	€0.06	€0.72	0.00	€0.00	0.00%
☐	●	massage gr	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	5	160	3.13%	€0.05	€0.23	0.00	€0.00	0.00%
☐	●	λεμφικο μασαζ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	4	47	8.51%	€0.06	€0.24	0.00	€0.00	0.00%
☐	●	μασαζ για κυτταρίτιδα	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	4	30	13.33%	€0.11	€0.42	0.00	€0.00	0.00%
☐	●	μασαζ σωματοσ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	3	63	4.76%	€0.16	€0.49	0.00	€0.00	0.00%
☐	●	καταπολέμηση κυτταρίτιδασ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	3	18	16.67%	€0.12	€0.36	0.00	€0.00	0.00%
☐	●	spa masaz	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	3	56	5.36%	€0.08	€0.24	0.00	€0.00	0.00%
☐	●	μηχανημα για μασαζ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	3	62	4.84%	€0.04	€0.13	0.00	€0.00	0.00%
☐	●	μηχανημα μασαζ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	3	50	6.00%	€0.06	€0.17	0.00	€0.00	0.00%
☐	●	μασαζ στο σπιτι	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	2	52	3.85%	€0.18	€0.35	0.00	€0.00	0.00%
☐	●	μασαζ σπιτι	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	2	39	5.13%	€0.43	€0.85	0.00	€0.00	0.00%
☐	●	μασαζ κυτταρίτιδασ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	2	56	3.57%	€0.09	€0.17	0.00	€0.00	0.00%
☐	●	masaz gr	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	2	254	0.79%	€0.05	€0.10	0.00	€0.00	0.00%
☐	●	κυτταρίτιδα μασαζ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	2	60	3.33%	€0.16	€0.31	0.00	€0.00	0.00%
☐	●	εργαλεια μασαζ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	2	20	10.00%	€0.05	€0.10	0.00	€0.00	0.00%
☐	●	μασαζ spa	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	1	113	0.88%	€0.07	€0.07	0.00	€0.00	0.00%
☐	●	μασαζ προσφορεσ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	1	9	11.11%	€0.06	€0.06	0.00	€0.00	0.00%
☐	●	κυτταρίτιδα καταπολεμηση	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	1	8	12.50%	€0.08	€0.08	0.00	€0.00	0.00%
☐	●	συσφιξη γλουτων	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	1	13	7.69%	€0.09	€0.09	0.00	€0.00	0.00%
☐	●	κρεμεσ για κυτταρίτιδα	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	1	12	8.33%	€0.07	€0.07	0.00	€0.00	0.00%
☐	●	προιοντα για μασαζ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	1	18	5.56%	€0.07	€0.07	0.00	€0.00	0.00%
☐	●	συσκευη για κυτταρίτιδα	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	1	38	2.63%	€0.10	€0.10	0.00	€0.00	0.00%
☐	●	μηχανη μασαζ	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	1	9	11.11%	€0.06	€0.06	0.00	€0.00	0.00%
☐	●	μασαζ deals	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	Eligible	–	1	1	100.00%	€0.06	€0.06	0.00	€0.00	0.00%

Image 41: Google ads keywords list, sorted by clicks in descending order

The keyword with the most clicks was "μασαζ" which is a relative yet general term that can be applied to many search queries. This keyword costed 8.21€ with an average CPC of 0.21€, nevertheless it achieved a 2.78% CTR which is low compared with the rest on our list. On top of that, the best CTR attained was 100% for the keyword "μασαζ deals", having a single impression and a click. However, we consider this as an outlier, so the second best CTR scored was 16.67% (18 impressions, 3 clicks, average CPC 0.12€ and

total cost 0.36€) for the keyword "καταπολέμηση κυτταρίτιδας" which was a far more representative keyword for our ad. In the gender tab, in the demographics section, it is obvious that female users hold the first place, due to the nature of the product. The ad appeared on the female audience 14,768 times with 193 clicks, 1.31% CTR and costed 16.07€. On the other hand, the male audience scored a slightly better CTR of 1.40%, since the 3,930 views resulted in 55 clicks, costed 8.25€ with an average 15 cents per click, while the unknown audience scored 0.71% CTR, which is almost the half CTR value of the male group. The CTR of the male audience was an unexpected and interesting outcome, since this item's utility is remarkably specific (cellulite treatment) and focuses on women. These results are presented next, in Image 42.

		Gender ↑	Ad group	Status	Bid adj.	Clicks	Impr.	CTR	Avg. CPC	Cost
☐	●	Female	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	– ⊠	193	14,768	1.31%	€0.08	€16.07
☐	●	Male	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	– ⊠	55	3,930	1.40%	€0.15	€8.25
☐	●	Unknown	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	– ⊠	93	13,150	0.71%	€0.05	€4.64
		Total: Genders				341	31,848	1.07%	€0.08	€28.96
		Total: Other				0	0	–	–	€0.00
		Total: Campaign				341	31,848	1.07%	€0.08	€28.96

Image 42: Anti-cellulite Massage device Google Ads Gender

In the age tab of the demographics menu, the unknown age group had the most clicks and impressions scoring 83 and 10,659 respectively. Nevertheless, it translates to a low CTR of 0.78%, which was the second lowest after 25-34 group's minimum CTR of 0.76%. At the same time, the 45-54 group had the best performance with 1.48% CTR, 74 clicks, 5,006 impressions and costed us 8 cents per click. In the same way, 18-24 and 35-44 groups achieved relatively considerable CTRs (1.32% and 1.33%) but with more expensive average CPC. We notice that the 45-54 age group also outperformed the rest groups in our Facebook Newsfeed Stories ad. This fact clarifies that this age group has potentials and must be focused in future advertising. Image 43 depicts these statistics.

		Age ↑	Ad group	Status	Bid adj.	Clicks	Impr.	CTR	Avg. CPC	Cost
☐	●	18 - 24	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	– ⊠	16	1,214	1.32%	€0.15	€2.47
☐	●	25 - 34	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	– ⊠	30	3,961	0.76%	€0.11	€3.18
☐	●	35 - 44	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	– ⊠	59	4,427	1.33%	€0.13	€7.64
☐	●	45 - 54	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	– ⊠	74	5,006	1.48%	€0.08	€5.92
☐	●	55 - 64	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	– ⊠	47	3,923	1.20%	€0.08	€3.73
☐	●	65+	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	– ⊠	32	2,658	1.20%	€0.04	€1.36
☐	●	Unknown	Συσκευή Μασάζ κατά της κυτταρίτιδας	Campaign ended	– ⊠	83	10,659	0.78%	€0.06	€4.66
		Total: Ages				341	31,848	1.07%	€0.08	€28.96

Image 43: Anti-cellulite Massage device Google Ads Age

In the day tab of the ad schedule menu, Thursday stands out for most clicks, however the high number of impressions leads to a low 0.86% CTR which makes Thursday and Sunday (with also 0.86% CTR) the days with the lowest performance. On the other hand, Monday achieved the best CTR of 1.47% with 54 clicks, 3,670 impressions, with average CPC 8 cents and costed 4.29€. Moreover, Friday also performed exceptionally, considering that had the second best CTR of 1.27% with 35 clicks and 2,754 impressions, at the minimum cost of 1.65€. Image 44 presents the days results of our campaign.

Day	↓ Clicks	Impr.	CTR	Avg. CPC	Cost
Thursday	61	7,063	0.86%	€0.07	€4.05
Sunday	54	6,288	0.86%	€0.11	€5.87
Monday	54	3,670	1.47%	€0.08	€4.29
Saturday	50	4,206	1.19%	€0.12	€6.15
Tuesday	46	3,856	1.19%	€0.08	€3.60
Wednesday	41	4,011	1.02%	€0.08	€3.35
Friday	35	2,754	1.27%	€0.05	€1.65
Total: Campaigns	341	31,848	1.07%	€0.08	€28.96
Total: Campaign	341	31,848	1.07%	€0.08	€28.96

Image 44: Anti-cellulite Massage device Google Ads days, sorted by clicks descending

In the devices section, tablets hold the highest value of CTR, which is 1.33%, having 55 clicks and 4,142 impressions, while costed us the minimum amount of money (3.25€) in comparison with mobile phones (19.83€) and computers (5.88€). The high cost of mobile phones can be explained due to the numerous impressions, which were almost the 80% of the total number. Nonetheless, the 256 clicks resulted in a 1.01% CTR which was the lowest value achieved, as Image 45 portrays.

	Device	Level	Added to	Bid adj.	Ad group bid adj.	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	Mobile phones	Campaign	Website traffic-Search-Συσκευή μασάζ κυτταρίτιδας	– ⊠	None	256	25,325	1.01%	€0.08	€19.83	1.00	€19.83	0.39%
☐	Tablets	Campaign	Website traffic-Search-Συσκευή μασάζ κυτταρίτιδας	– ⊠	None	55	4,142	1.33%	€0.06	€3.25	1.00	€3.25	1.82%
☐	Computers	Campaign	Website traffic-Search-Συσκευή μασάζ κυτταρίτιδας	– ⊠	None	30	2,381	1.26%	€0.20	€5.88	0.00	€0.00	0.00%
	Total: Campai...					341	31,848	1.07%	€0.08	€28.96	2.00	€14.48	0.59%

Image 45: Anti-cellulite Massage device Google Ads Devices

To summarize with this Google Ads campaign, the sum of all impressions was 31,848, the clicks were 341, having a CTR of 1.07% and an average CPC of 8 cents, which led to a total 28.96€. We examined the e-shops sales and we discovered 5 sales during the campaign and the after-campaign timeframe of 28 days. This product was sold for 26.9€, which leads to a total amount of 134.50€.

4.1.4 Blender Appliance campaign

For the final product of globalspot.gr, the amount that was disbursed for Facebook Ads reached 61.37€ and 31.79€ for Google Ads, summing to 93.16€ in total. However, the 4 confirmed sales during ads period and attribution window, gathered the amount of 285.60€, which leads to the deduction that this campaign was similarly unprofitable as the rest two products of globalspot.gr.

Facebook Ads

The same concept was utilized once again for this product, regarding the design and the parameters configuration, with only a few differences. The age spectrum was 18-65+ for both genders, that are interested in cocktails, blenders, dips (food), salsa (sauce), cooking, juices, healthy living or smoothies. This audience selection provided us an estimation about people that are eligible to view our ads. These numbers of people were approximately 2,500,000 for Instagram and 3,100,000 for Facebook. Additionally, the estimated daily results due to our daily budget were 820-2.4K users per day with 23-66 clicks for Facebook and 2.8K-8.0K people with 26-74 clicks for Instagram. The main metrics of the two ad sets are presented in Image 10. As the numbers declare, Facebook outperformed Instagram for this specific product. With a 3.60% CTR, having 16,924 people that viewed our ad, 28,847 impressions, a fairly economical average CPC of 3 cents, 1,038 clicks and a total cost of 30.07€, it was clearly a productive ad, in contrast to Instagram that even though it had multiple impressions and reach values, it did not deliver. In the demographics results, as far as Facebook is concerned, women in the age group 55-64 hold the majority of the total link clicks (36%), followed by women of the 65+ age group. In general, 612 clicks of the total 835, were made by the female audience, while the least interested age groups were the 18-24, 25-34 and 35-44, as Image 46 depicts.
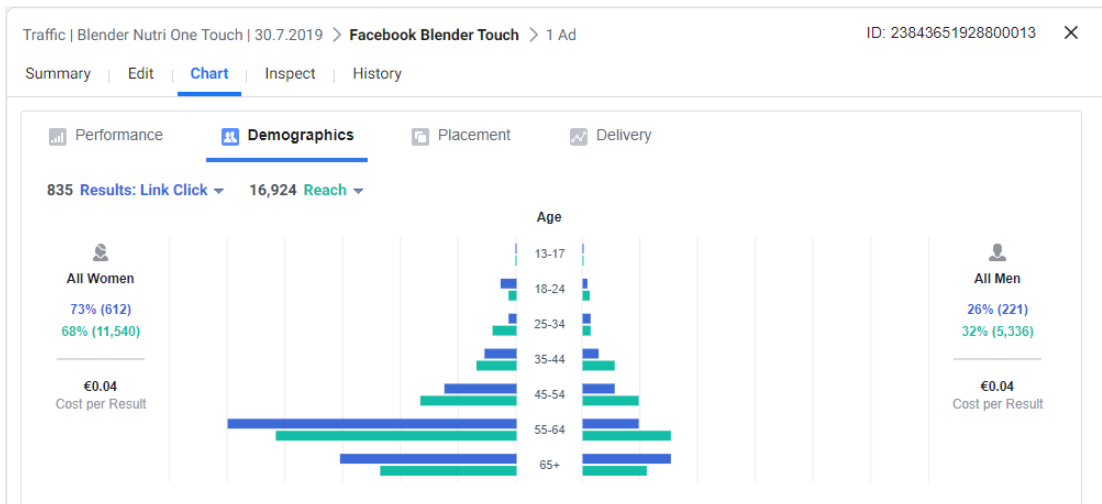
Image 46: Facebook Blender appliance ad Demographics

These groups could be excluded in a future promoting attempt in Facebook, so to explore the potentials of the more productive groups. In the Instagram ad demographics, the best performance descends as the age increases. For both men and women, the age group 18-24 has the most views while 18-24 and 25-34 hold the main volume of link clicks, which support the distribution of Instagram users report from Statista [58]. The results are displayed below in Image 47.
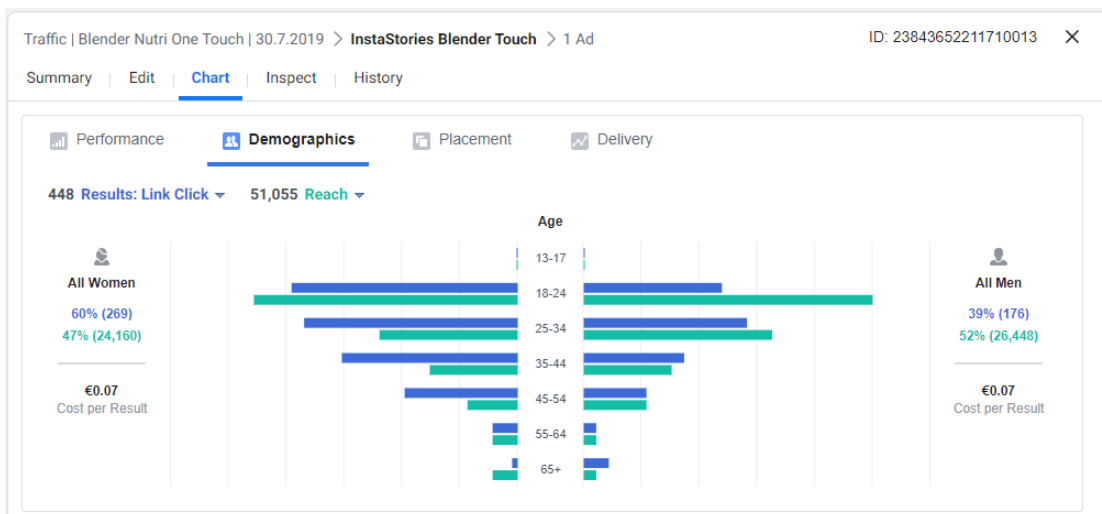
Image 47: Instagram Blender appliance ad Demographics

In the case of a future rerun of this campaign, we could exclude the age groups 55-64, 65+ from Instagram ads, due to the extremely poor performance. The total amount spent for both ad sets was 61.37€, which was an expected price, since our daily budget was 2.00€, for the duration of 16 days.

Google Ads

The same approach was followed in this Google campaign once again. Three expanded text ads, eligible for all devices and display networks were created. As can be observed next in Image 48, the first ad among the three listed in descending order based on their clicks, achieved 163 clicks with 59,390 impressions, a low 0.27% CTR, with an average 0.06€ CPC and costed 9.87€ of the 31.79€ total campaign cost.

		Ad	Ad group	Status	Ad type	↓ Clicks	Impr.	CTR	Avg. CPC	Cost
☐	●	Μπλέντερ με Βιβλίο συνταγών | Δημιουργήστε υγιεινούς χυμούς | Καθαρίσ... www.globalspot.gr Ισχυρό και ευέλικτο με ποιότητα, για να φτιάξετε γρήγορα σπιτικές σάλτσες, πουρέ χυμούς. Χωρίς κουμπιά! Απλά χρειάζεται να πατήσετε το επάνω μέρος για να αρχίσει ν...	Blender Nutri One Touch	Campaign ended	Expanded text ad	163	59,390	0.27%	€0.06	€9.87
☐	●	Μπλέντερ με Βιβλίο συνταγών | InnovaGoods 600W Γκρι | Παράδοση σε έω... www.globalspot.gr Ισχυρό και ευέλικτο με ποιότητα, για να φτιάξετε γρήγορα σπιτικές σάλτσες, πουρέ χυμούς. Χωρίς κουμπιά! Απλά χρειάζεται να πατήσετε το επάνω μέρος για να αρχίσει ν...	Blender Nutri One Touch	Campaign ended	Expanded text ad	114	41,065	0.28%	€0.11	€12.79
☐	●	Άμεση παράδοση | InnovaGoods 600W Γκρι | Μπλέντερ με Βιβλίο συνταγών www.globalspot.gr Ισχυρό και ευέλικτο με ποιότητα, για να φτιάξετε γρήγορα σπιτικές σάλτσες, πουρέ χυμούς. Χωρίς κουμπιά! Απλά χρειάζεται να πατήσετε το επάνω μέρος για να αρχίσει ν...	Blender Nutri One Touch	Campaign ended	Expanded text ad	108	20,854	0.52%	€0.08	€9.13
		Total: All but removed ads ⓘ				385	121,309	0.32%	€0.08	€31.79
	⌄	Total: Campaign ⓘ				385	121,309	0.32%	€0.08	€31.79

Image 48: Blender appliance Google ads and metrics

However, the best CTR in this campaign was achieved by the ad with the least clicks and impressions, which reached at a relatively low 0.52%.

For this promotion task, we utilized as many keywords as possible, since we assumed that this product can be associated with many food related activities and lifestyles. In addition, while our campaign was running, we added 95 broad match keywords that were suggested by Google ads, in order to cover the majority of users search queries. In the keywords tab, we can observe that the keyword with the most clicks was "μπλέντερ" (blender) with 71 clicks, 2,046 impressions, 3.47% CTR, having an average 0.17€ CPC and costed 11.99€, which is an expected result, considering our product. The rest of the results are less representative, since they describe the appliance, or present relative ideas that are may be associated with it. Image 49 displays the outcome.

		Keyword	Ad group	Status	Policy details	Final URL	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	●	Total: All but removed keywor... ⓘ					132	4,668	2.83%	€0.15	€19.56	0.00	€0.00	0.00%
☐	●	μπλέντερ	Blender Nutri One Touch	Campaign ended	Eligible	–	71	2,046	3.47%	€0.17	€11.99	0.00	€0.00	0.00%
☐	●	χυμός	Blender Nutri One Touch	Campaign ended	Eligible	–	25	1,046	2.39%	€0.12	€2.92	0.00	€0.00	0.00%
☐	●	σάλτσα	Blender Nutri One Touch	Campaign ended	Eligible	–	19	902	2.11%	€0.10	€1.93	0.00	€0.00	0.00%
☐	●	smoothie	Blender Nutri One Touch	Campaign ended	Eligible	–	5	160	3.13%	€0.19	€0.95	0.00	€0.00	0.00%
☐	●	μπλέντερ σκρουτζ	Blender Nutri One Touch	Campaign ended	Eligible	–	4	58	6.90%	€0.10	€0.38	0.00	€0.00	0.00%
☐	●	πουρές	Blender Nutri One Touch	Campaign ended	Eligible	–	3	96	3.13%	€0.13	€0.39	0.00	€0.00	0.00%
☐	●	διατροφη για	Blender Nutri One Touch	Campaign ended	Eligible	–	2	54	3.70%	€0.11	€0.21	0.00	€0.00	0.00%
☐	●	μιξερ με καδο	Blender Nutri One Touch	Campaign ended	Eligible	–	1	22	4.55%	€0.10	€0.10	0.00	€0.00	0.00%
☐	●	πολυμιξερ kenwood	Blender Nutri One Touch	Campaign ended	Eligible	–	1	58	1.72%	€0.08	€0.08	0.00	€0.00	0.00%
☐	●	υγιεινή διατροφή	Blender Nutri One Touch	Campaign ended	Eligible	–	1	66	1.52%	€0.61	€0.61	0.00	€0.00	0.00%
☐	●	διατροφη και υγεια	Blender Nutri One Touch	Campaign ended	Eligible	–	0	4	0.00%	–	€0.00	0.00	€0.00	0.00%
☐	●	διαιτα για χοληστερινη	Blender Nutri One Touch	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	χοληστερινη διατροφη	Blender Nutri One Touch	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	θελω να χασω κιλα	Blender Nutri One Touch	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	διαιτα express	Blender Nutri One Touch	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	διατροφη για χοληστερινη	Blender Nutri One Touch	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	απωλεια βαρουσ	Blender Nutri One Touch	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	πωσ να χασω κιλα	Blender Nutri One Touch	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	διαιτα προγραμμα	Blender Nutri One Touch	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	διαιτα για χασιμο βαρουσ	Blender Nutri One Touch	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%

Image 49: Google ads Keywords list, sorted by clicks in descending order

As can be seen from the above list, from the total 101 keywords, only 10 of them managed to achieve at least a click, while the rest keywords with zero clicks were only displayed a few times, considering that their description was outside of users' scope. However, the keyword "μπλέντερ σκρουτζ" with 58 impressions and 4 clicks, achieved the best CTR and costed 0.38€. This fact is not unexpected, since this phrase contains the term "σκρουτζ", which is currently the most prominent best price comparison website. Therefore, this keyword should be taken into account for future advertising for the reason that it may provide better results.

In the demographics tab, the female audience had the most clicks (165) and the second best CTR (0.36%) with average CPC 7 cents and a total cost of 11.45€. The unknown group had the most impressions, a phenomenon that appeared in the rest campaigns also, but the number of clicks resulted in the lowest CTR among groups, with a value of 0.23%. On the other hand, the male audience had the best CTR (0.61%) with the least clicks (73), impressions (11,993), cost (9.92€) but with the highest average CPC (14 cents), as can be seen in Image 50.

		Gender ↑	Ad group	Status	Bid adj.	Clicks	Impr.	CTR	Avg. CPC	Cost
☐	●	Female	Blender Nutri One Touch	Campaign ended	− ⊠	165	45,394	0.36%	€0.07	€11.45
☐	●	Male	Blender Nutri One Touch	Campaign ended	− ⊠	73	11,993	0.61%	€0.14	€9.92
☐	●	Unknown	Blender Nutri One Touch	Campaign ended	− ⊠	147	63,922	0.23%	€0.07	€10.42
		Total: Genders				385	121,309	0.32%	€0.08	€31.79
		Total: Other				0	0	−	−	€0.00
		Total: Campaign				385	121,309	0.32%	€0.08	€31.79

Image 50: Google ads Blender appliance, Demographics Gender

Regarding the age groups, the unknown group had the most clicks (138), impressions (53,483) and cost (10.31€). Nevertheless, the highest CTR (0.49%) scored by 55-64 group, followed by 18-24 with 0.43%, which also had the most expensive average CPC of 14 cents. Image 51 presents the audience's age metrics.

		Age	Ad group	Status	Bid adj.	Clicks	Impr.	↓ CTR	Avg. CPC	Cost
☐	●	55 - 64	Blender Nutri One Touch	Campaign ended	− ⊠	68	13,901	0.49%	€0.09	€5.84
☐	●	18 - 24	Blender Nutri One Touch	Campaign ended	− ⊠	15	3,478	0.43%	€0.14	€2.10
☐	●	45 - 54	Blender Nutri One Touch	Campaign ended	− ⊠	62	15,154	0.41%	€0.09	€5.40
☐	●	65+	Blender Nutri One Touch	Campaign ended	− ⊠	34	8,464	0.40%	€0.07	€2.34
☐	●	35 - 44	Blender Nutri One Touch	Campaign ended	− ⊠	44	14,827	0.30%	€0.10	€4.29
☐	●	Unknown	Blender Nutri One Touch	Campaign ended	− ⊠	138	53,483	0.26%	€0.07	€10.31
☐	●	25 - 34	Blender Nutri One Touch	Campaign ended	− ⊠	24	12,002	0.20%	€0.06	€1.51
		Total: Ages				385	121,309	0.32%	€0.08	€31.79

Image 51: Google ads Blender appliance, Demographics Age

According to the metrics, this specific appliance appeals more to ages 45 to 64, than the rest age groups.

In the day tab, which is located in the ad schedule menu, Wednesday had 67 clicks, which was the highest number, followed by Tuesday with 64 and Monday, Thursday with 62. The best CTR however was achieved by Saturday, having 0.44% and the most expensive average CPC of 0.13€. On the other hand, the bottom positions regarding CTR were occupied by Monday with 0.25% and Tuesday with 0.26%, even though they both had the most impressions. Therefore, Google charged an average of 5 cents CPC for these two days, since users were not interested in clicking on our ad despite the high number of views. Image 52 illustrates these metrics.

Day	↓ Clicks	Impr.	CTR	Avg. CPC	Cost
Wednesday	67	15,888	0.42%	€0.09	€6.10
Tuesday	64	24,236	0.26%	€0.05	€3.48
Monday	62	24,984	0.25%	€0.05	€3.01
Thursday	62	20,436	0.30%	€0.11	€6.68
Sunday	50	15,409	0.32%	€0.07	€3.68
Saturday	42	9,561	0.44%	€0.13	€5.60
Friday	38	10,795	0.35%	€0.08	€3.23
Total: Campaigns ⑦	385	121,309	0.32%	€0.08	€31.79
Total: Campaign ⑦	385	121,309	0.32%	€0.08	€31.79

Image 52: Blender appliance Google ads, Days tab, sorted by clicks descending

In the devices section, the most clicks and impressions occurred on mobile phones, with 254 clicks, 84,288 impressions, costing 20.56€. The CTR values were in unsatisfying levels for all three devices, however the metrics in Image 53, support the fact mentioned in the previous ads, that mobile phones are clearly an advertising medium that requires a lot of focus, since it can target a massive audience.

	Device	Level	Added to	Bid adj.	Ad group bid adj.	↓ Clicks	Impr.	CTR	Avg. CPC	Cost
☐	Mobile phones	Campaign	Website traffic-Search Blender	— ⊠	None	254	84,288	0.30%	€0.08	€20.56
☐	Tablets	Campaign	Website traffic-Search Blender	— ⊠	None	74	19,117	0.39%	€0.07	€5.02
☐	Computers	Campaign	Website traffic-Search Blender	— ⊠	None	57	17,904	0.32%	€0.11	€6.21
	Total: Campai... ⑦					385	121,309	0.32%	€0.08	€31.79

Image 53: Blender appliance Google ads Devices

In conclusion, this campaign achieved 385 clicks, an outstanding number of 121,309 impressions, a poor CTR of 0.32% and costed 31.79€ in total. There were four sales regarding this product during the timeframe of 31 July to 13 September, that can be attributed to our campaign, having a total of 285.60€.

4.1.5 Earplugs October campaign

This was the only campaign that was repromoted, due to major budget reduction. Additionally, it was the only campaign compared to the previous attempts, that according our client was profitable. The cost for this effort resulted in 0.41€ for Facebook Ads and 31.97€ for Google Ads, summing to a total of 32.38€, while the confirmed sales reached the amount of 256.5€. Equally to the first earplugs campaign, this promotion presented profits.

Facebook Ads

In the same manner as the previous campaign implementations, we focused on increasing traffic to our e-shop. We utilized the same daily budget and audience, since the estimations provided the same fairly broad audience and considering the miniscule cost of July's attempt, it was a budget that the website owner would prefer. However, considering that Google trends findings were in low levels for the period that we ran our ads, we managed to achieve slightly improved results, as can be observed in Image 11. Compared to the globalspot.gr products, our earplugs campaign continues to struggle. However, we achieved improved metrics for Instagram ad in contrast with July's metrics. More notably, the total number of impressions was 501, while Instagram had 389 with 1.80% CTR and 7 clicks (zero clicks in July). Nonetheless, Facebook had lower values in October than in July, having 112 impressions, 2.68% CTR and 3 clicks. Despite those numbers, it still achieved better CTR than Instagram in this campaign too, with both having almost identical amount spent. In Facebook's demographics charts, the male audience scored most impressions. More specifically, the age group 55-64 occupied the first place among the other age groups, with 45-54 group holding second place. The female audience had a weakened performance compared to July's demographics, while the age groups 18-24 and 25-34 had the least values in contrast to the rest groups. The results are displayed below, in Image 54.

Image 55: Earplugs Facebook ad Demographics

Regarding the Instagram counterpart, the female audience did not deliver, compared to the previous advertising attempt. Nevertheless, the male audience aged 18 to 44 held the 91% of the total number of impressions. As we mentioned in the other campaigns, Instagram dominates in the age groups of 18-24 and 25-34 for both sexes, therefore these metrics were not an outlier [58]. Image 56 portrays these values.

Image 56: Earplugs Instagram ad Demographics

The total sum spent for both ads for 15 days was 0.41€, a remarkably low amount of money, compared to the globalspot.gr campaigns who utilized their 2.00€ daily budget to the fullest. Similar to July's earplugs ads, they did not fulfill our expectations in terms of metrics, therefore further analysis is needed.

Google Ads

For this Google ads campaign, in general, we kept the same concept of 3 ads, two expanded text ads and a responsive search ad. The parameters regarding networks, demographics, ad schedule as well as campaign budgets and goals, did not differentiate. However, the ad text was meticulously composed, in order to avoid the imbalance that was obvious in July's attempt. In spite of that action, we notice that an ad stands out, however there is a much more improved distribution in comparison with our first earplugs campaign. The expanded text ad had the most clicks and spent more than half of the total budget, with 1,398 impressions, leading to an exquisite 12.88% CTR. All three ads had almost identical average CPC of 9 and 10 cents, as can be observed among the various metrics in Image 57 below.

Image 57: Earplugs Google ads and metrics

Based on our previous results, we reused our 17 keywords and added 2 more to test their potentials. The winner in number of clicks keyword, was once more "ωτοασπίδεσ", having relatively low average CPC price of 0.09€, spending the 75% of total cost, as expected. However, the second best was the previous third in classification keyword and our new keyword occupied the fourth place with 9 clicks and 12.86% CTR, which renders it a fine addition to our list. The highest CTR value was achieved by the "ωτοασπιδεσ υπνου" keyword, second in clicks rank, nevertheless the overall CTR percentages decreased compared to July's measurements. An intriguing coincidence is that 7 keywords scored at least 1 click from the total 19, which is the exact same umber as in July's keyword list. The metrics are displayed in Image 58 that follows.

		Keyword	Ad group	Status	Policy details	Final URL	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	●	ωτοασπίδεσ	Alpine1	Campaign ended	Eligible	–	261	3,179	8.21%	€0.09	€24.04	2.00	€12.02	0.77%
☐	●	ωτοασπιδεσ υπνου	Alpine1	Campaign ended	Eligible	–	56	365	15.34%	€0.10	€5.54	0.00	€0.00	0.00%
☐	●	ηλεκτρονικεσ ωτοασπιδεσ	Alpine1	Campaign ended	Eligible	–	10	110	9.09%	€0.09	€0.92	0.00	€0.00	0.00%
☐	●	ωτοασπίδεσ σιλικόνησ	Alpine1	Campaign ended	Eligible	–	9	70	12.86%	€0.10	€0.93	0.00	€0.00	0.00%
☐	●	μασκεσ υπνου	Alpine1	Campaign ended	Eligible	–	3	111	2.70%	€0.15	€0.45	0.00	€0.00	0.00%
☐	●	μάσκα ύπνου	Alpine1	Campaign ended	Eligible	–	1	74	1.35%	€0.02	€0.02	0.00	€0.00	0.00%
☐	●	μασκα υπνου	Alpine1	Campaign ended	Eligible	–	1	133	0.75%	€0.07	€0.07	0.00	€0.00	0.00%
☐	●	ωτοασπιδεσ για κολυμβηση	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ωτοασπιδεσ ύπνου	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ωτοασπιδεσ επαγγελματικεσ	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ωτοασπιδεσ εργασίασ	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ωτοασπίδεσ τιμη	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ωτοασπιδεσ ηχου	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ωτοασπίδεσ σκοποβολησ	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	οι καλυτερεσ ωτοασπιδεσ	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ωτοασπιδεσ σκοποβολησ ηλεκτρονικεσ	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ωτοασπιδεσ alpine	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ωτοασπιδεσ μουσικησ	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
☐	●	ωτοασπιδεσ νερού	Alpine1	Campaign ended	Eligible	–	0	0	–	–	€0.00	0.00	€0.00	0.00%
		Total: A... ⑦					341	4,042	8.44%	€0.09	€31.97	2.00	€15.98	0.59%
	⌄	Total: C... ⑦					341	4,042	8.44%	€0.09	€31.97	2.00	€15.98	0.59%

Show rows: 30 ▾ 1 - 19 of 19 |< < > >|

Image 58: Earplugs Google ads Keywords list, sorted by clicks in descending order

Regarding the demographics, the age group 35-45 achieved the most clicks and the second highest CTR (8.84%), costing an average 0.09€ per click, resulting to a total cost of 7.17€. In addition, the second-best group in number of clicks is 45-54, which came first in July. However, the CTR topped in 18-24 group, having 13.58%, 44 clicks and 324 impressions, while it descended in 65+ age group, with only 11 clicks, 212 impressions, 5.19% CTR, costing in total 0.93€. The above metrics are shown in Image 59.

☐	●	Age	Status	Bid adj.	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	●	35 - 44	Campaign ended	– ⊠	78	882	8.84%	€0.09	€7.17	1.00	€7.17	1.28%
☐	●	45 - 54	Campaign ended	– ⊠	67	845	7.93%	€0.10	€6.83	0.00	€0.00	0.00%
☐	●	25 - 34	Campaign ended	– ⊠	57	649	8.78%	€0.10	€5.55	1.00	€5.55	1.75%
☐	●	Unknown	Campaign ended	– ⊠	48	681	7.05%	€0.09	€4.36	0.00	€0.00	0.00%
☐	●	18 - 24	Campaign ended	– ⊠	44	324	13.58%	€0.09	€4.10	0.00	€0.00	0.00%
☐	●	55 - 64	Campaign ended	– ⊠	36	449	8.02%	€0.08	€3.03	0.00	€0.00	0.00%
☐	●	65+	Campaign ended	– ⊠	11	212	5.19%	€0.08	€0.93	0.00	€0.00	0.00%
		Total: Ages			341	4,042	8.44%	€0.09	€31.97	2.00	€15.98	0.59%
		Total: Other			0	0	–	–	€0.00	–	–	–
		Total: Ad group			341	4,042	8.44%	€0.09	€31.97	2.00	€15.98	0.59%

1 - 7 of 7

Image 59: Google Ads Earplugs Demographics Age

Comparing the audience's gender in the corresponding tab, we notice that the difference in clicks among the two sexes in July was alleviated in the October campaign. To be more precise, male audience had 157 clicks, 1,916 impressions, 8.19% CTR and costed 14.52€, whereas women achieved 140 clicks, 1,462 impressions, a higher CTR of 9.58% and costed 13.46€. The unknown group had relatively medium results, as can be seen next, in Image 60.

☐	●	Gender	Status	Bid adj.	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	●	Male	Campaign ended	– ⊠	157	1,916	8.19%	€0.09	€14.52	2.00	€7.26	1.27%
☐	●	Female	Campaign ended	– ⊠	140	1,462	9.58%	€0.10	€13.46	0.00	€0.00	0.00%
☐	●	Unknown	Campaign ended	– ⊠	44	664	6.63%	€0.09	€3.99	0.00	€0.00	0.00%
		Total: Genders			341	4,042	8.44%	€0.09	€31.97	2.00	€15.98	0.59%
		Total: Other			0	0	–	–	€0.00	–	–	–
		Total: Ad group			341	4,042	8.44%	€0.09	€31.97	2.00	€15.98	0.59%

1 - 3 of 3

Image 60: Google Ads Earplugs Demographics Gender

In general, all days produced between 42 and 56 clicks, having an average 8 to 13 cents per click. Nonetheless, Saturday and Sunday were the most successful in terms of CTR, with 11.51% and 11.31% respectively, while the least productive were Monday and Tuesday. The following image, Image 61, depicts the outcome for each day.

Day	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
Wednesday	56	618	9.06%	€0.08	€4.57	1.00	€4.57	1.79%
Friday	53	672	7.89%	€0.13	€6.82	0.00	€0.00	0.00%
Thursday	52	602	8.64%	€0.08	€4.28	0.00	€0.00	0.00%
Sunday	50	442	11.31%	€0.09	€4.37	0.00	€0.00	0.00%
Monday	44	718	6.13%	€0.08	€3.50	1.00	€3.50	2.27%
Tuesday	44	625	7.04%	€0.08	€3.46	0.00	€0.00	0.00%
Saturday	42	365	11.51%	€0.12	€4.97	0.00	€0.00	0.00%
Total: Campaigns ⑦	341	4,042	8.44%	€0.09	€31.97	2.00	€15.98	0.59%
Total: Campaign ⑦	341	4,042	8.44%	€0.09	€31.97	2.00	€15.98	0.59%

1 - 7 of 7

Image 61: Earplugs Google Ads days, sorted by clicks descending

In the devices tab, we observe that mobile phones are an ongoing trend for this ad once more. They scored 288 clicks with 2,666 impressions and 10.80% CTR, costing approx-

imately 75% of the total amount. Furthermore, the CTR for both computers and tablets decreased in this campaign in comparison with July's results. Once again, the weakest link is the computer devices, with the lowest CTR of 3.31%. The main metrics are portrayed in Image 62 below.

	Device	Level	Added to	Bid adj.	Ad group bid adj.	↓ Clicks	Impr.	CTR	Avg. CPC	Cost	Conversions	Cost / conv.	Conv. rate
☐	Mobile phones	Campaign	Alpine Traffic 03.10.2019-18.10.2019	− ⊠	None	288	2,666	10.80%	€0.09	€27.23	1.00	€27.23	0.35%
☐	Computers	Campaign	Alpine Traffic 03.10.2019-18.10.2019	− ⊠	None	35	1,058	3.31%	€0.09	€3.29	1.00	€3.29	2.86%
☐	Tablets	Campaign	Alpine Traffic 03.10.2019-18.10.2019	− ⊠	None	18	318	5.66%	€0.08	€1.45	0.00	€0.00	0.00%
	Total: Campai... ⑦					341	4,042	8.44%	€0.09	€31.97	2.00	€15.98	0.59%
													1 - 3 of 3

Image 62: Earplugs Google Ads Devices

To sum up, this campaign had 341 clicks, 4,042 impressions, average 8.44% CTR and 31.97€ total cost, in a period of 16 days. According to the attribution's model window, there were 15 earplug sales, resulting in 256.5€. Compared to July's attempt, this campaign ran a day less, therefore cost less, however it achieved less sales. On the other hand, we should bear in mind that we ran this campaign in a timeframe with fairly low public interest regarding earplug products.

Google Analytics

Taking a glimpse at the acquisition overview section, we observe that this campaign fetched 1,012 new users, with 1,038 users initiating at least one session, meaning there were users revisiting our website. The number of sessions is almost identical to July's, while the overall bounce rate was increased by almost 4%. Moreover, we notice that organic search still holds the most users, with a relatively high bounce rate of 73.61%, which is higher than the one in July. This may indicate issues related to the website structure, or even products prices. Furthermore, paid search has 352 users and 43.18% bounce rate, while the number of users for direct and referral channels did not deviate compared to our previous attempt. These values are approximate to the metrics that July campaign achieved, with July having slightly better results, then again, the data from google trends were not in favour of October. However, bounce rate of social channels decreased by 13%, which is a pleasant outcome, when at the same time the corresponding value for referral channels unfortunately increased by almost 34%. The metrics can be observed in Image 63.

Image 63: Earplugs Google Analytics, Acquisition overview

Inspecting the social networks tab, Facebook had 20 new users, totalling in 25 users with 71 sessions, 57.75% bounce rate and 4.18 pages per session. Even though the number of users declined compared to July, the rest of the metrics were notably improved. On the other hand, Instagram is absent, since there were no users to initiate a session. Nonetheless, we have a user from YouTube with a session that viewed 6 pages. The metrics are displayed next, in Image 64.

Image 64: Earplugs Google Analytics, Social Networks

Moving to our Google Ads tab in the campaigns section, we validate that the clicks provided by Google Ads are the exact same with Analytics tool, as well as the total cost. Compared to July, October's bounce rate dropped by 3%, whilst the sessions decreased by almost 50. Considering the duration of our campaign, in addition to the challenging timeframe of the first quarter of October, this outcome is more than adequate, compared to our test in July. Below, the metrics are summarized in Image 65.

Image 65: Earplugs Google Analytics, Ad groups

Furthermore, regarding the sources of our traffic acquisition, Google organic search remains the first medium in terms of number of users and sessions. In contrast to July, the bounce rate of this source increased, considering that the session duration decreased by

30 seconds, in addition to the reduction of pages per session value. On the other hand, our paid Google advertisement showed improvement, since the bounce rate reduced by a whole 3% in comparison to the previous earplugs campaign. In general, Google cpc outperformed Instagram and Facebook cpc, given the limited number of users and sessions, along with their improved but still unsatisfactory bounce rates. In the same way, referral websites performed poorly, having Facebook referral (m.facebook.com / referral) similar results as its cpc. Their metrics are illustrated in Image 66 that follows.

Source/Medium	Acquisition			Behaviour		
	Users	New Users	Sessions	Bounce Rate	Pages/Session	Avg. Session Duration
	1,038 % of Total: 100.00% (1,038)	1,012 % of Total: 100.00% (1,012)	1,228 % of Total: 100.00% (1,228)	61.73% Avg for View: 61.73% (0.00%)	2.60 Avg for View: 2.60 (0.00%)	00:01:43 Avg for View: 00:01:43 (0.00%)
1. google / organic	617 (57.56%)	592 (58.50%)	677 (55.13%)	73.71%	2.24	00:01:30
2. google / cpc	301 (28.08%)	283 (27.96%)	347 (28.26%)	36.31%	3.17	00:01:39
3. (direct) / (none)	60 (5.60%)	54 (5.34%)	62 (5.05%)	58.06%	2.44	00:01:52
4. instagram / cpc	33 (3.08%)	32 (3.16%)	33 (2.69%)	84.85%	1.42	00:00:17
5. facebook / cpc	15 (1.40%)	14 (1.38%)	19 (1.55%)	84.21%	1.47	00:02:21
6. m.facebook.com / referral	15 (1.40%)	13 (1.28%)	15 (1.22%)	93.33%	1.07	00:00:01
7. bitterbooze.com / referral	6 (0.56%)	6 (0.59%)	6 (0.49%)	16.67%	5.50	00:03:25
8. facebook.com / referral	5 (0.47%)	4 (0.40%)	5 (0.41%)	80.00%	1.40	00:01:11
9. l.facebook.com / referral	5 (0.47%)	3 (0.30%)	5 (0.41%)	60.00%	1.40	00:00:29
10. bing / organic	4 (0.37%)	3 (0.30%)	4 (0.33%)	50.00%	3.25	00:01:17
11. int / cpc	2 (0.19%)	2 (0.20%)	2 (0.16%)	100.00%	1.00	00:00:00
12. ints / cpc	2 (0.19%)	2 (0.20%)	2 (0.16%)	100.00%	1.00	00:00:00
13. alphaecommerce.gr / referral	1 (0.09%)	0 (0.00%)	1 (0.08%)	100.00%	1.00	00:00:00
14. business.facebook.com / referral	1 (0.09%)	0 (0.00%)	45 (3.66%)	44.44%	5.80	00:07:06
15. digio.gr / referral	1 (0.09%)	1 (0.10%)	1 (0.08%)	100.00%	1.00	00:00:00
16. lavasoft.gosearchresults.com / referral	1 (0.09%)	1 (0.10%)	1 (0.08%)	100.00%	1.00	00:00:00
17. vrisko.gr / referral	1 (0.09%)	1 (0.10%)	1 (0.08%)	100.00%	1.00	00:00:00
18. yandex / organic	1 (0.09%)	1 (0.10%)	1 (0.08%)	100.00%	1.00	00:00:00
19. youtube.com / referral	1 (0.09%)	0 (0.00%)	1 (0.08%)	0.00%	6.00	00:04:52

Image 66: Earplugs Google Analytics, all traffic

4.2 Visualizations with Power BI tool

In order to provide a better view of our data and extrapolate possible conclusions regarding our campaigns, we utilized Microsoft's Power BI tool capabilities for our visual analysis. Our starting point towards implementing this, was to gather our various data in Excel tables, so to load them in Power BI and proceed with the visualization development. However, as we mentioned before in this dissertation, the volume of our data was extremely limited, due to the fact that our client's business was newly established and there were no previous marketing attempts. The following sections portray the results for each e-shop.

4.2.1 Globalspot.gr

For our first report, we employed the demographics data for the timeframe between the start of our three products campaigns and the ending date of the attribution window, leading to a period of approximately a month and a half. The visualization states that the 60.57% of the audience during August and the middle of September, were males. Moreover, the 92.94% of the users belonged in the age group of 60 years old and above, with 35-49 group holding the 2.55% of the total audience. Image 67 displays the above observations.
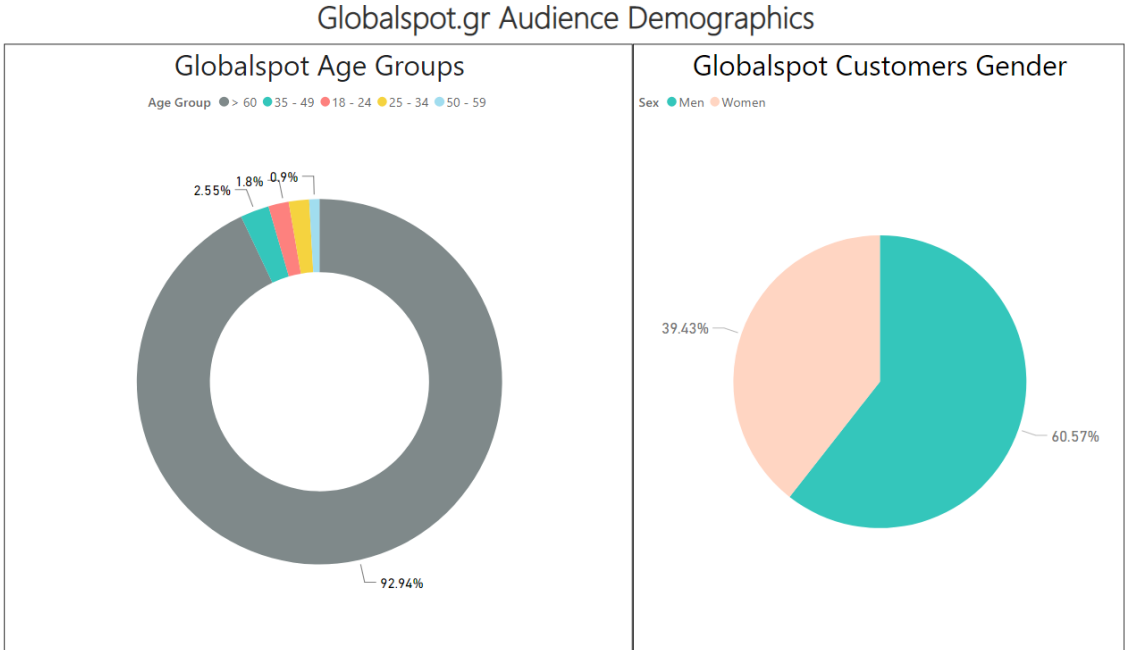
Image 67: Globalspot.gr Demographics for August – September

On the next visualization, we portrayed the sales per product along with the selling price, the ads cost and the total sales. It is obvious that the blender appliance is the top seller, since its selling price is the highest among the three. Furthermore, it is a product that doesn't strictly apply to a specific age group, as for instance the anti-cellulite massage device. However, we may assume that according to Image 67, our customers are probably in the >60 category. Regarding this, some suggestions would be to focus promoting products that appeal to this customer group, or change products in order to broaden the audience, since these three campaigns were unprofitable. The total cost of the campaigns was almost half of the total revenue and our client argued that there were additional costs that we neither were aware of nor had access. As a consequence, this issue resulted in approximately -28% ROI value, which we calculated using our known

data, such as the V.A.T. excluded prices. The next visual in Image 68, depicts our findings.
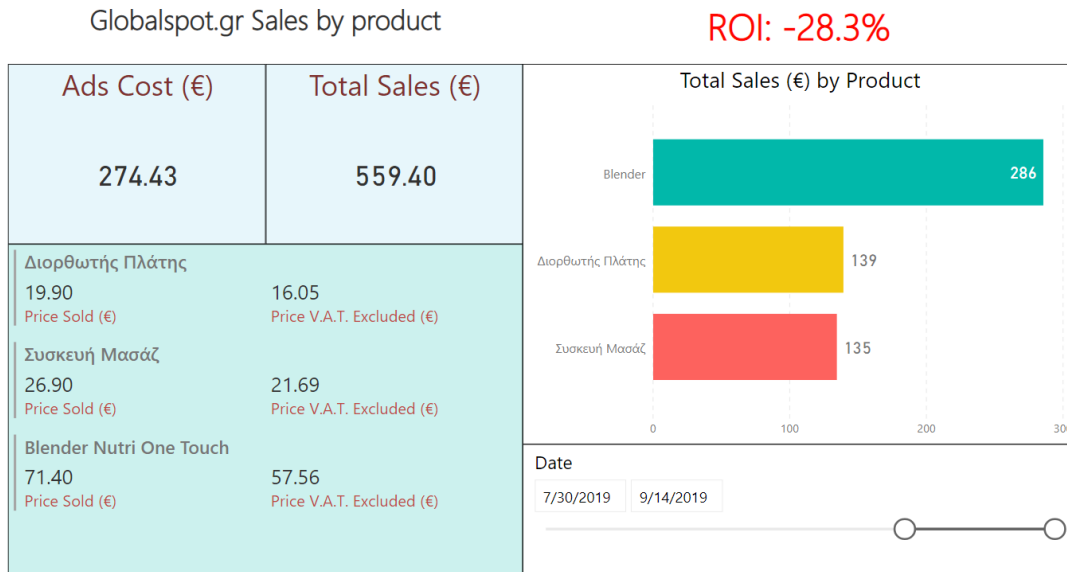
Image 68: Globalspot.gr total sales

In the following visual of Image 69, we portrayed in a more analytical way the sales results during the period our campaigns ran in addition to the attribution window duration. Moreover, we observe that the ranks of the promoted products reached the top ten of the overall website sales during this timeframe.
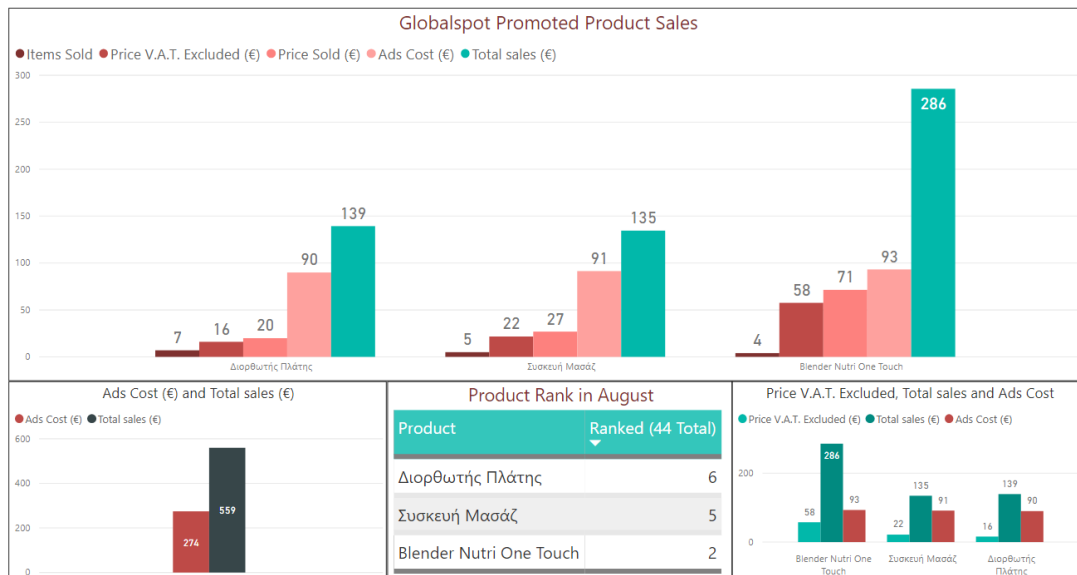
Image 69: Analytical view of sales during campaign and attribution window

In terms of clicks, Facebook outperformed Google campaign, however it is a reasonable outcome, bearing in mind that Facebook included Instagram ads too, therefore having

twice the cost. However, CTR of the posture corrector product was a pleasant outlier in Google ads, which could be translated as a successful promotion implementation. Image 70 below, compares the two platforms.
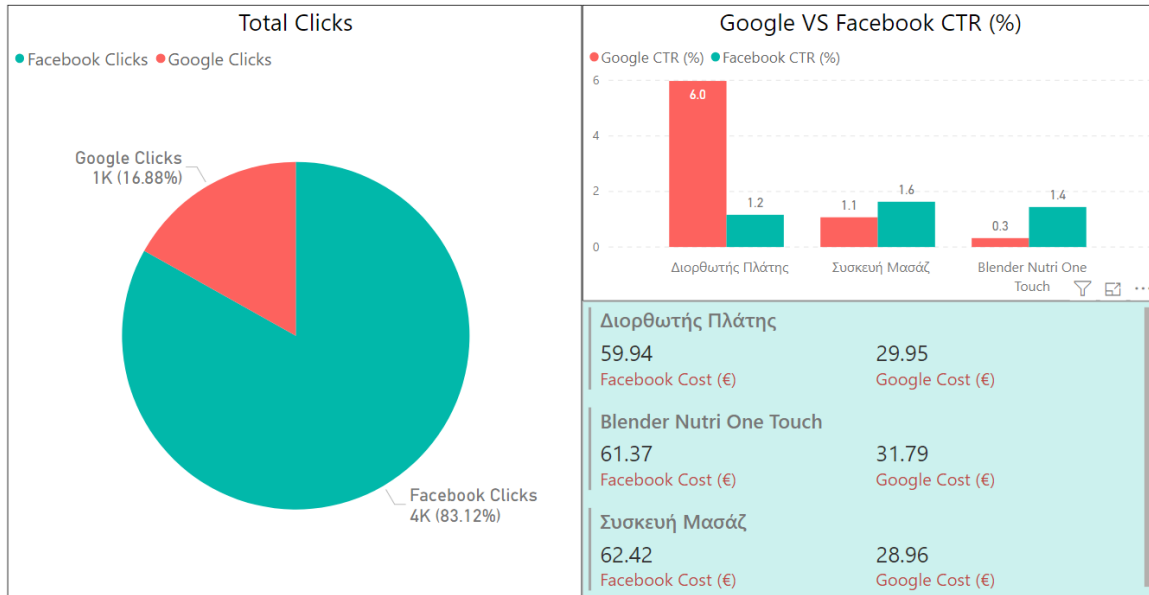
Image 70: Globalspot.gr Google Ads vs Facebook Ads

An undeniable fact is that in the previous four months of our few historical data, there were any sales for the anti-cellulite massage device, a fact that changed after our campaign. Furthermore, the sales volume of the posture corrector increased from 2 items sold during May till July to 7 items in August, in contrast to blender appliance that reduced by more than half of July's sales, as can be seen next in Image 71.

Image 71: Globalspot.gr historical sales data

Nonetheless, our conclusion considering the above visuals is that regardless the negative ROI value, our campaigns resulted in 16 confirmed sales during August.

4.2.2   Earhealth.gr

The same procedure was followed for the implementation of earhealth.gr earplug products dashboards in Power BI tool. In Image 72 we notice that male audience is larger than female audience and age groups 35-44 and 45-54 scored the more clicks in both campaigns, as can be seen below.
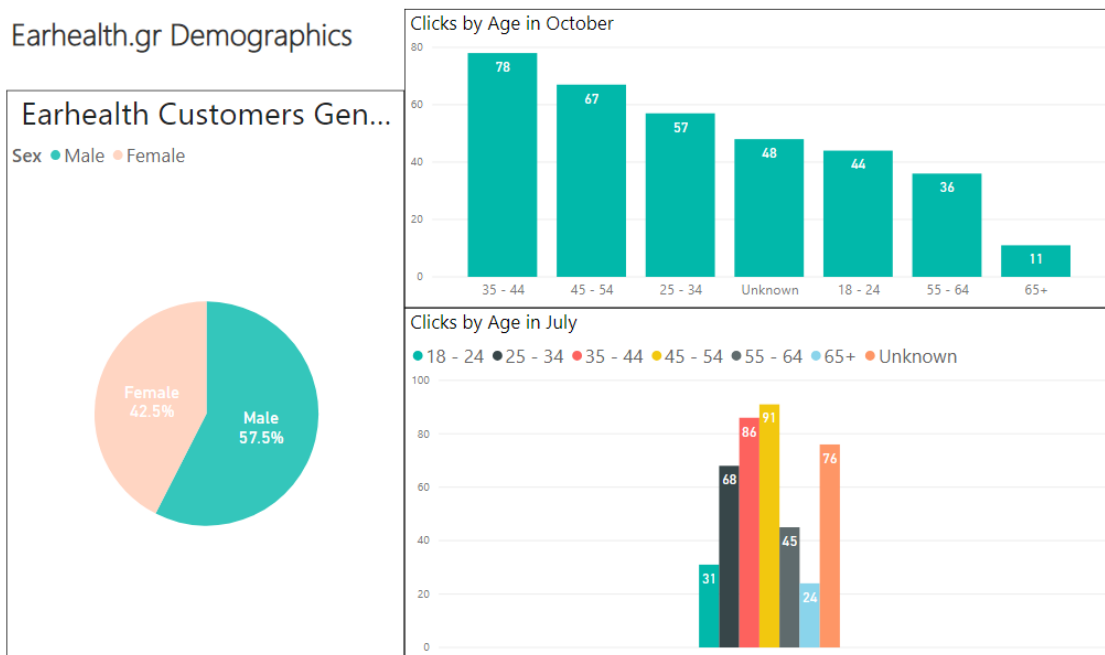
Image 72: Earhealth.gr Demographics for July and October campaigns

On the next images (Image 73 to Image 75), we visualized the sales for July and October campaigns, as well as the total sales data that were collected from the e-shop.
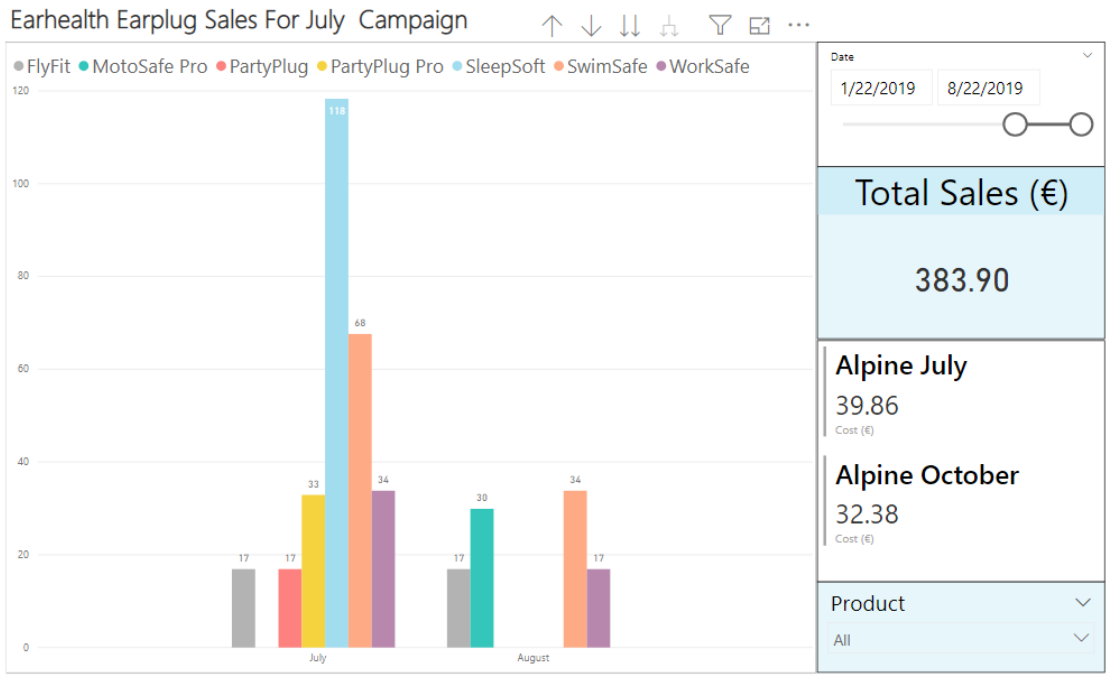
Image 73: Earhealth.gr July sales campaign

In each visualization of Images 73 and 74, we drilled down the dates from years to months in order to present a more elaborate view of the attribution window.
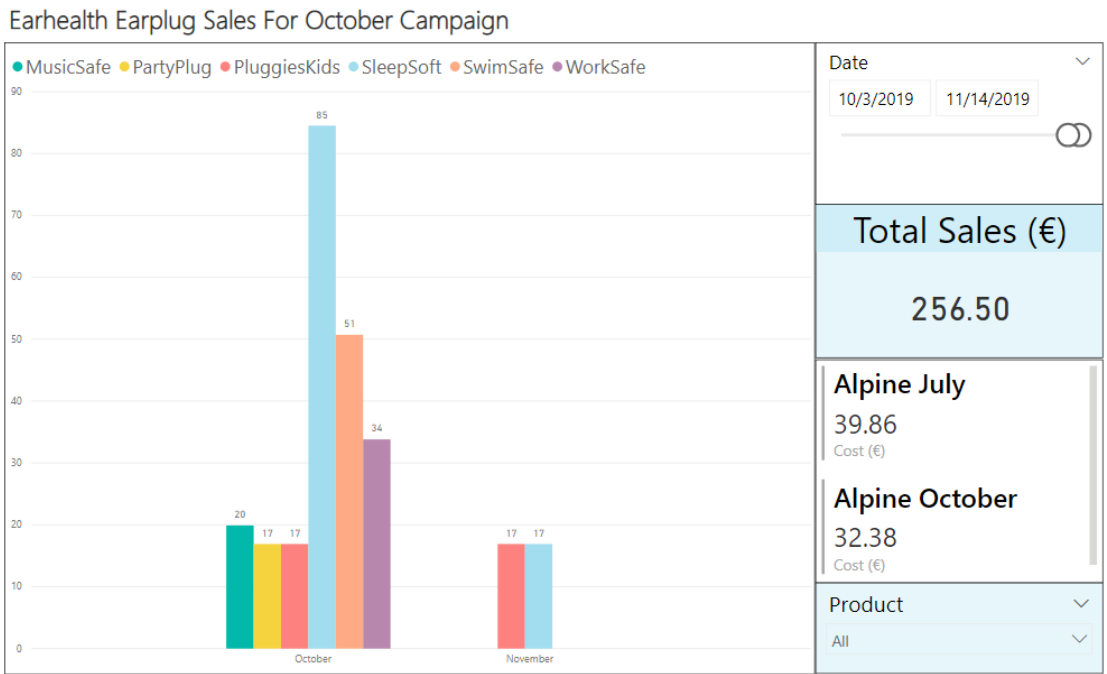
Image 74: Earhealth.gr October sales campaign
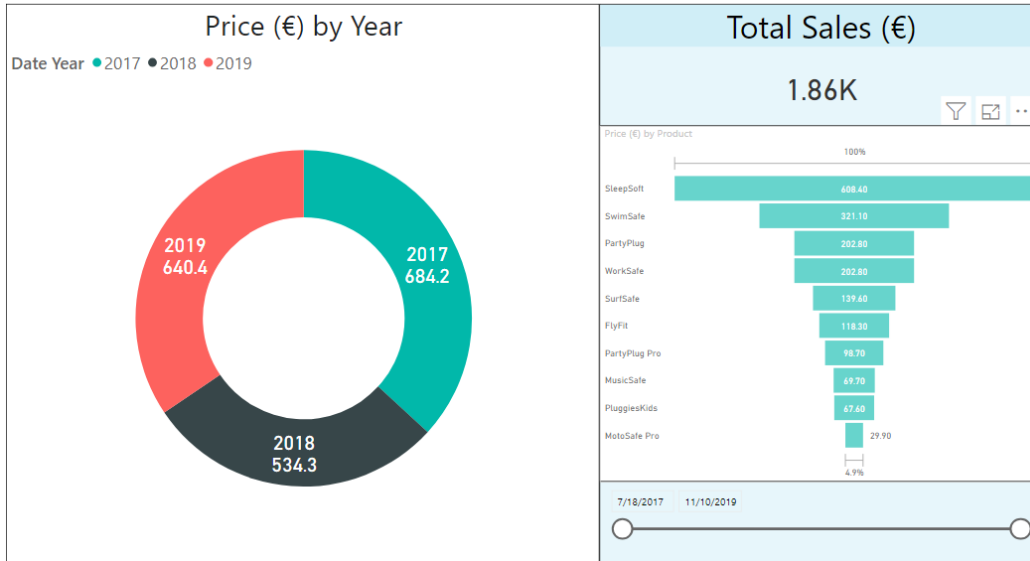
Image 75: Earhealth.gr historical sales data 2017 – 2019

We can observe that 2017 was the most profitable in terms of sales. Nevertheless, our attempts resulted in a far better result, compared to 2018 sales. Moreover, 'Sleepsoft' earplugs outperformed every other product of the same category. In contrast to global-spot.gr, in these campaigns, Google Ads had far superior results than Facebook Ads platform, in terms of clicks and CTR. On the other hand, it was an expected outcome, considering that Facebook and Instagram scored extremely low results in both July and October. The next visual in Image 76, presents the results of the two tools.
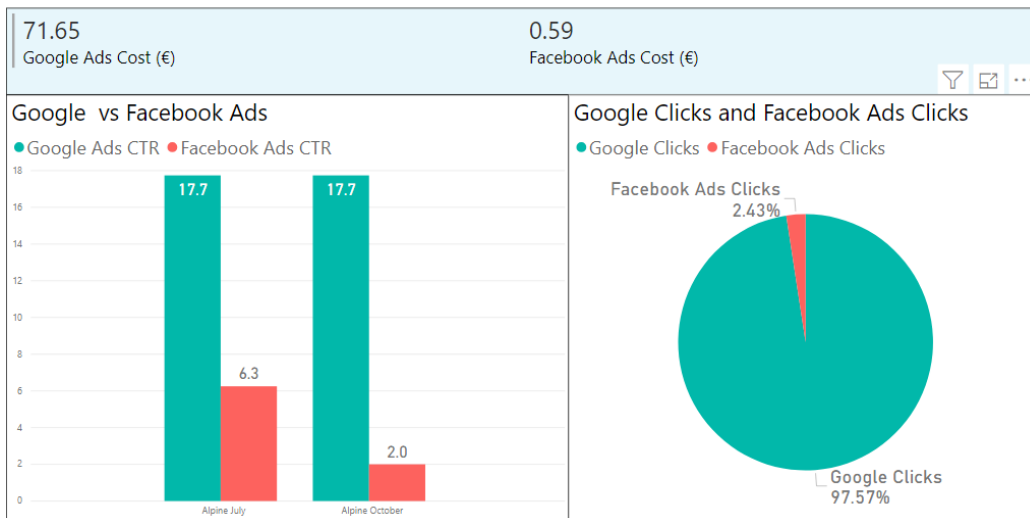
Image 76: Earhealth.gr Google Ads vs Facebook Ads

Once more, impressions and cost values between Google and Facebook platforms show a major gap, as Image 77 displays.

Impressions, Bounce Rates and Costs
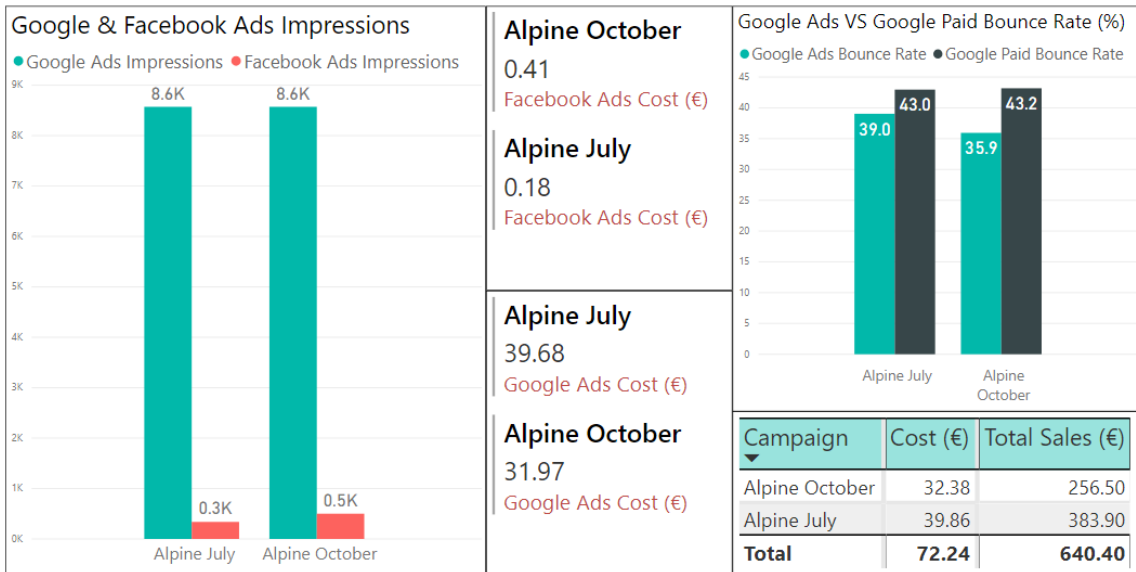
Image 77: Earhealth.gr Impressions, Costs and Bounce Rates

In order to perform an indicative prediction, we utilized Power BI's online platform so to structure a corresponding visualization. Image 78 that follows, portrays the increments or reductions for each earplug category.
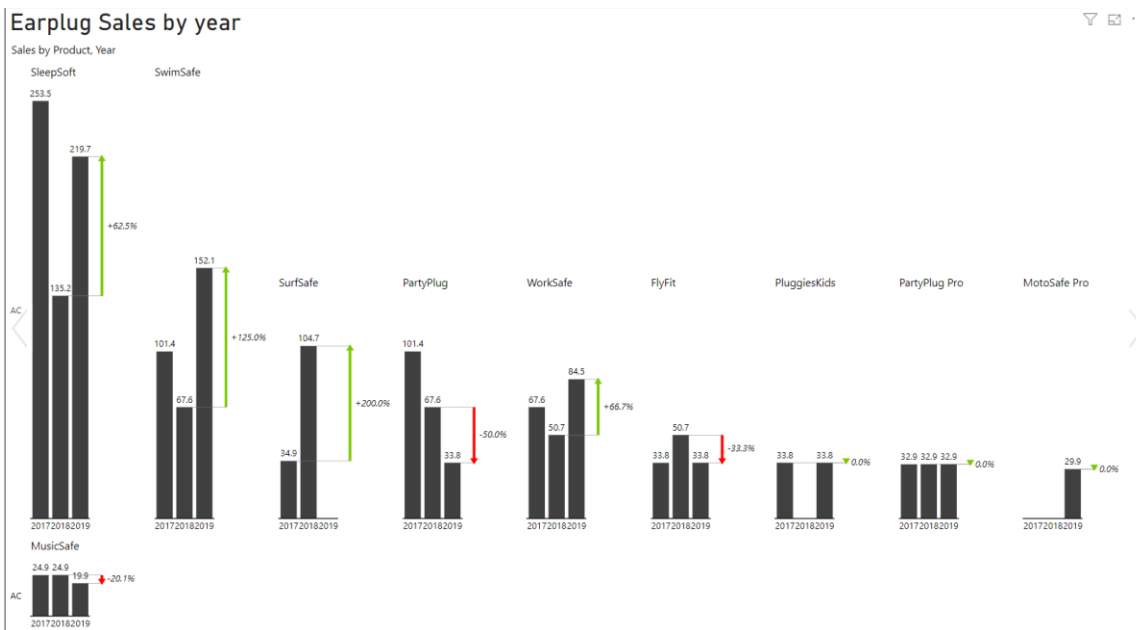

Image 78: Earhealth.gr Earplugs Sales by product, Year

Furthermore, we created a correlation plot, indicating the relation between sales and Ad cost. As can be seen in Image 79 below, they are highly correlated.
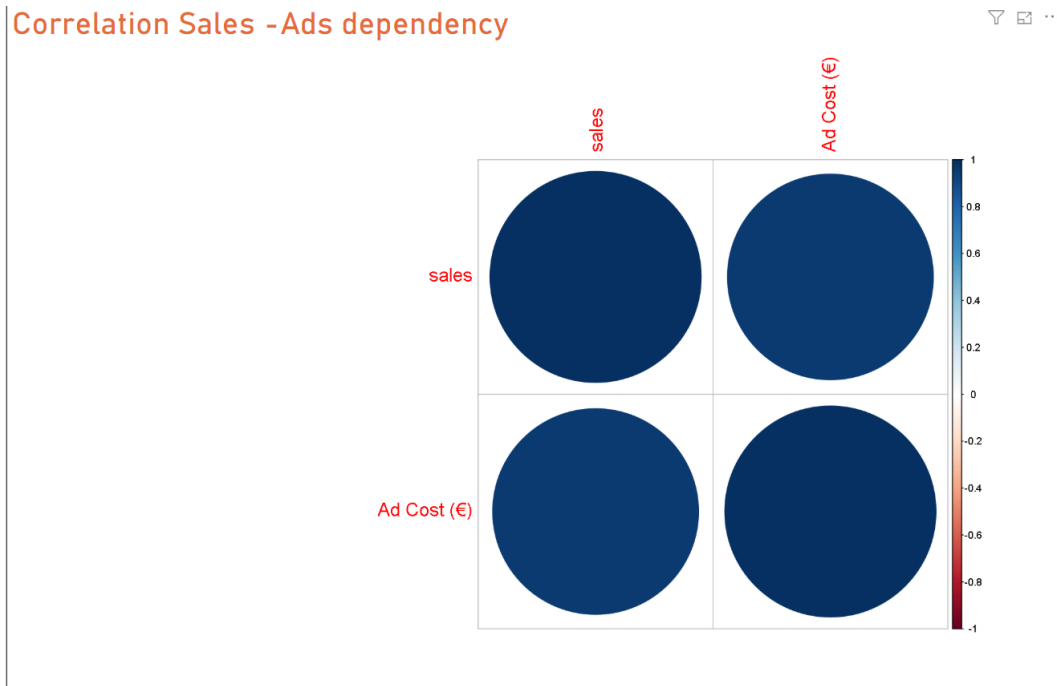
Image 79: Earhealth.gr Correlation Sales- Ads

In our final visualization, we formed a time series graph, having as inputs the date, ROI and products data. Nevertheless, 'Sleepsoft' and 'Swimsafe' products presented positive ROI values, regarding 2020 sales. Despite that, further analysis is needed for the rest product types, so to decide upon the marketing planning for future attempts. Image 80 presents our ROI prediction visualization.
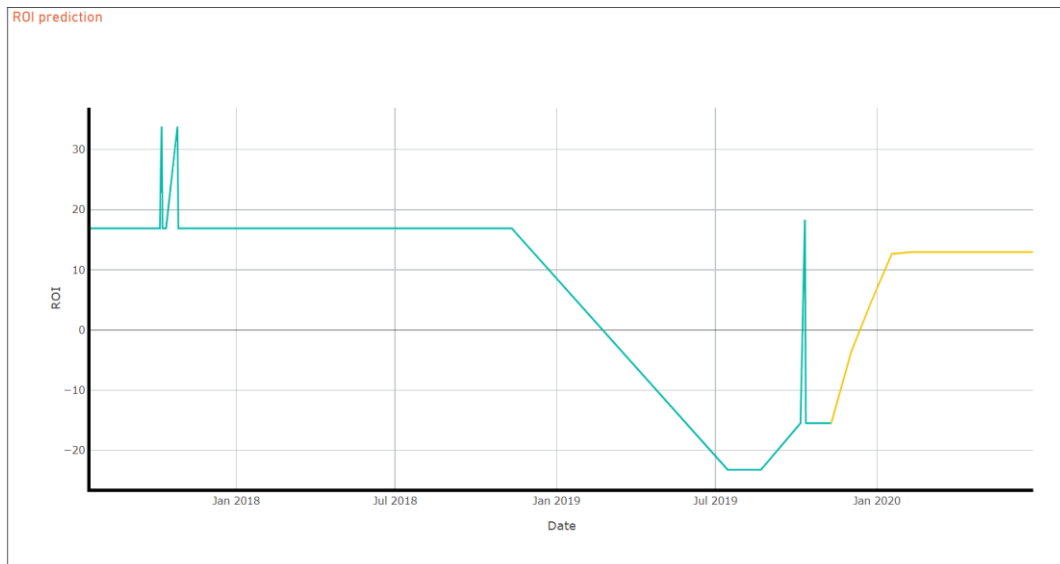

Image 80: ROI prediction for 'Sleepsoft' and 'Swimsafe' earplugs

5 Results

Regarding the earhealth.gr products, they were the only profitable products, even though our ads compared to globalspot.com campaigns had significantly lower values in terms of users and clicks. Overall, sales across all products summed to 1,858.9€ for the period of 2017-2019, with 2019 outperforming 2018 by a decent amount of revenue. Among the different types of earplug products, 'Sleepsoft' was a significant outlier, with a total value of 608.4€. In total, our sales decreased between October and November of 2019 by 84.8%, however, our campaigns ran in a barren period, according to Google Trends data. The products 'Sleepsoft', 'Swimsafe', 'Worksafe', 'Musicsafe' and 'Partyplug' had reduced sales by 67.6€, 50.7€, 33.8€, 19.9€ and 16.9€ respectively, in comparison with October 2019.

The three globalspot.gr e-shop products, anti-cellulite massage device, blender appliance and posture corrector, had no sales records regarding the same months that we ran our campaign ad in the previous years. Nonetheless, compared to the four previous months, we achieved a relatively good outcome. More specifically, we created sales for the massage device product and tripled the sales in the posture corrector product, as our data declared. Considering the performance of the third advertisement, of the posture corrector product, it is highly recommended that in future implementations, the specific selection of text, headlines and their order, should be avoided. On the other hand, blender appliance delivered, but poorly, in contrast to the previous month which was the most profitable for this item. However, we strongly believe that a budget higher than the maximum bid of 2€ per day that was used, would reach a larger audience, hence delivering better results. Furthermore, our client was hesitant/adamant in investing more money on our campaigns, regardless the fact that our ads improved sales, hence our ad potentials were limited.

6 Conclusions

To sum up with our dissertation, we implemented campaigns for four products, regarding two e-shops of a local business in Thessaloniki. This action generated data, which we gathered, unified with data from other sources and then manufactured meaningful visualizations, in order to interpret them. However, we faced difficulties in the process, therefore we did not accomplish a more complete approach of the task. For instance, the lack of tracking code in globalspot.gr limited our analysis, since Google Analytics tool was malfunctioning, resulting in inaccurate values. Additionally, the miniscule budget provided by our client and the short period of marketing led to low data volumes which made it practically impossible to implement a predictive model in a programming language such as Python or R or even employ it on an online machine learning tool such as Azure ML.

Therefore, our suggestions for future attempts would be a much larger budget, for an extended period, in addition to the globalspot.gr backend, which needs repairing and improvements. Moreover, we could test other products, so to discover items with better marketing potentials. Another future direction would be a more stable marketing plan in order to establish a constant business – customer relationship.

Concluding our thesis, we can safely state that this was a cumbersome yet intriguing task. We were introduced to visualizations, acquired marketing design and implementation skills and gained valuable hands-on experience on a real-life project.

Bibliography

1. https://support.google.com/trends/answer/4365533?hl=en

2. https://en.support.wordpress.com/com-vs-org/

3. https://www.prestashop.com/en/faq

4. Shima, Alfa. Varfan, Mona. (2008): Traditional Marketing vs. Internet Marketing: A Comparison, Thesis, Malardalen University, Sweden.

5. Bhayani, Sanjay. (2018). Internet Marketing vs Traditional Marketing: A Comparative Analysis. 3. 53-63.

6. https://www.facebook.com/business/help/706063442820839?id=802745156580214

7. https://support.google.com/google-ads/answer/6319?hl=en

8. https://support.google.com/google-ads/answer/6304?hl=en&ref_topic=24936

9. Page, Kelly. (2015). E-Mail Marketing, Wiley Encyclopedia of Management.

10. https://www.tableau.com/learn/articles/data-visualization

11. https://www.oracle.com/solutions/business-analytics/data-visualization.html

12. Gorunescu F. (2011) Exploratory Data Analysis. In: Data Mining. Intelligent Systems Reference Library, vol 12., pp. 57-157, Springer, Berlin, Heidelberg

13. Chugh, Ritesh & Grandhi, Sriman. (2013). Why Business Intelligence? Significance of Business Intelligence Tools and Integrating BI Governance with Corporate Governance. International Journal of E-Entrepreneurship and Innovation. Vol. 4, no. 2, pp. 1-14

14. Negash S., Gray P. (2008) Business Intelligence. In: Handbook on Decision Support Systems 2. International Handbooks Information System, pp. 175-193, Springer, Berlin, Heidelberg

15. https://powerbi.microsoft.com/en-us/what-is-power-bi/

16. https://www.tableau.com/products/what-is-tableau

17. https://support.google.com/datastudio/answer/6283323?hl=en

18. https://www.sisense.com/gartner-magic-quadrant-business-intelligence/

19. Zheng, Jack & Peltsverger, Svetlana. (2015). Web Analytics Overview, Encyclopedia of Information Science and Technology, Third Edition, Chapter: 756

20. Joel Järvinen, Heikki Karjaluoto, The use of Web analytics for digital marketing performance measurement, Industrial Marketing Management, Vol. 50, 2015, pp. 117-127

21. https://support.google.com/google-ads/answer/2401634?hl=en&ref_topic=24937

22. https://gs.statcounter.com/search-engine-market-share

23. https://support.google.com/tagmanager/answer/6102821?hl=en

24. https://www.analyticsmania.com/post/google-tag-manager-vs-google-analytics/#gref

25. https://www.facebook.com/business/help/742478679120153?id=1205376682832142

26. https://www.facebook.com/business/help/116118951805237

27. https://www.facebook.com/business/help/272503946776144?id=2196356200683573

28. https://support.google.com/google-ads/answer/1704373?hl=en

29. https://support.google.com/google-ads/answer/7684791?hl=en

30. https://support.google.com/google-ads/answer/7056544?hl=en

31. https://support.google.com/google-ads/answer/2471185?hl=en

32. https://support.google.com/google-ads/answer/2453981?hl=en&ref_topic=3122865

33. https://support.google.com/google-ads/answer/2580383?hl=en

34. https://support.google.com/google-ads/answer/6054492?hl=en

35. https://support.google.com/google-ads/answer/6323?hl=en

36. https://support.google.com/google-ads/answer/6298?hl=en&ref_topic=24937

37. https://support.google.com/google-ads/answer/1752122

38. https://support.google.com/google-ads/answer/7634668?hl=en&ref_topic=24937

39. https://support.google.com/google-ads/answer/2615875?hl=en

40. https://support.google.com/google-ads/answer/116495?hl=en&ref_topic=24937

41. https://support.google.com/google-ads/answer/6297?hl=en&ref_topic=24937

42. https://support.google.com/google-ads/answer/2464964

43. https://support.google.com/google-ads/answer/2732132

44. https://support.google.com/google-ads/answer/142918?hl=en&ref_topic=24937

45. https://support.google.com/google-ads/answer/142918?hl=en&ref_topic=24937

46. https://support.google.com/google-ads/answer/6365?hl=en&ref_topic=24937

47. https://support.google.com/google-ads/answer/6281923?hl=en

48. https://support.google.com/google-ads/answer/6320?hl=en&ref_topic=24937

49. https://www.facebook.com/business/help/675615482516035

50. https://support.google.com/google-ads/answer/14090?hl=en&ref_topic=24937

51. https://www.facebook.com/business/help/710746785663278

52. https://www.facebook.com/business/help/1546570362238584

53. https://www.facebook.com/business/help/659185130844708

54. https://www.facebook.com/business/help/1524637804434737

55. https://support.google.com/analytics/answer/1009409?hl=en

56. https://www.facebook.com/business/help/2198119873776795?id=768381033531365

57. https://support.google.com/google-ads/answer/3046555

58. https://www.statista.com/statistics/325587/instagram-global-age-group/

59. https://www.statista.com/statistics/802776/distribution-of-users-on-instagram-worldwide-gender/