

SEARCH ENGINE OPTIMIZATION

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Abstract: Search engine optimization techniques, often shortened to “SEO,” should lead to first positions in organic search results. Some optimization techniques do not change over time, yet still form the basis for SEO. However, as the Internet and web design evolves dynamically, new optimization techniques flourish and flop. Thus, we looked at the most important factors that can help to improve positioning in search results. It is important to emphasize that none of the techniques can guarantee high ranking because search engines have sophisticated algorithms, which measure the quality of webpages and derive their position in search results from it. Next, we introduced and examined the object of the optimization, which is a particular website. This web site was created for the sole purpose of implementing and testing all the main SEO techniques. The main objective of this article was to determine whether search engine optimization increases ranking of website in search results and subsequently leads to higher traffic. This research question is supported by testing and verification of results. The last part of our article concludes the research results and proposes further recommendations.

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Introduction

SEO is an important part of inbound marketing, i.e. marketing focused on being found by customers. That is the biggest difference compared to the traditional outbound marketing, wherein the process of attracting a customer works in the opposite direction, and companies focus on finding new customers themselves. Outbound marketing uses techniques that are not easily targetable and often interrupt people, i.e. cold calling, print advertising, TV advertising, junk mail, spam, or trade shows (Burnes, 2008). Research showed that 86% of people skip through television commercials, and 44% of direct mail is never opened (Nakano, 2011).

Search Engine Optimization

According to Google’s Search Engine Optimization Starter Guide (2010), SEO is a series of modifications and techniques, which make it easier for search engines to crawl, index, and understand the content of a website.

Generally, SEO is divided into two groups: *On-page* (modifying the structure of a website) and *Off-page* (techniques independent of website’s structure).

Right combination of both can bring significant increase in traffic thanks to higher position in SERP.

Before optimization itself, it is crucial to know the customer, market, and own capabilities. It is impossible to make a search engine optimization for every word on a page; therefore, it is important to select five to ten keywords, which most accurately represent the content. Moreover, optimization is always performed according to a specific query, which is likely to be searched by a user.

On-page SEO includes the elements that are in direct control of a publisher. The main on-page SEO elements are: contents, titles, domain name, URL structure, headings, internal links, meta tags, page speed, structured data, and site map.

Off-page SEO includes elements influenced by readers, visitors, and other publishers. These elements are not in direct control of a publisher but can positively influence the search rankings and boost traffic

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to a website. These elements are: social networks, blogs, forums and discussion boards, audio-visual media sharing, link building, trustworthiness, and personal settings.

Experiment

The main objective of this work was to test the impact of Search Engine Optimization on website traffic. We tested whether following hypotheses were true:

- H1: An organic search brings majority of traffic after implementation of search engine optimization techniques;
- H2: Bratislava travel guide websites are in an unsaturated market where it is possible to be listed on the first search results page in Google (rank < 10).

This study features this website: <http://bratislava-slovakia.eu>. This website has been created to test SEO techniques and their influence. Since then, it has been continuously filled by unique content.

Results

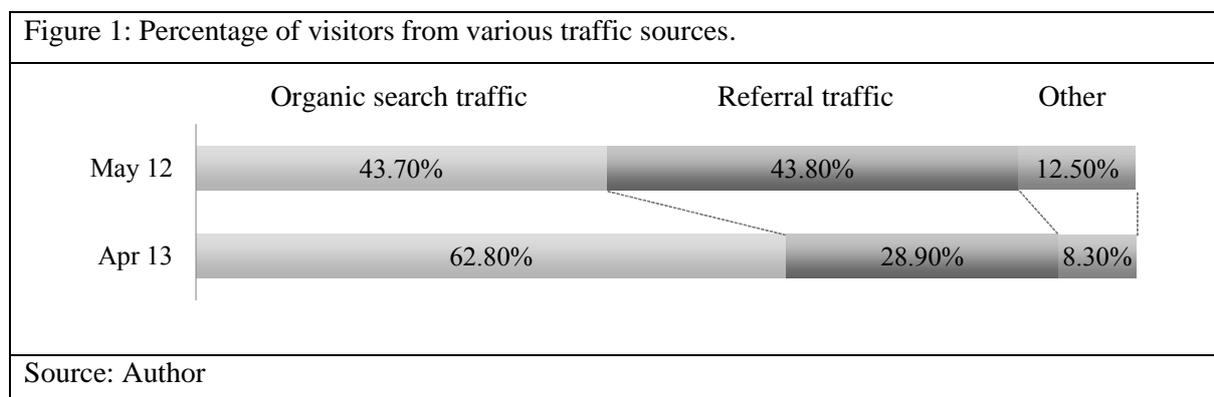
After fully launching the website in May 2012, we started to see an almost immediate increase in traffic.

Acceleration during the first three months was caused mainly by increasing number of visitors from referral websites. At that time, referrals were the most important source of traffic ~50% of all visitors.

However, August 2012 was the last month when we could see equal numbers between referral and organic search traffic. In September, organic traffic started to gather its momentum, and, a month after visitors from organic search, accounted for ~70% of all traffic (Figure 1). Therefore, we can assume, that it took us five months to “convince” Google about the importance and quality of our website. During this time, our website started to move higher and higher in search result ranking, occasionally even reaching the first position.

Number of visitors were growing at a satisfactory rate of ~30% month-on-month. This only confirms, that keeping website fresh with new content is a clear signal for Google to rank our website higher.

In April 2013, 13 months after a full launch, for the first time we have hit 10,000 visitors per month. At that moment, referral traffic accounted only for 5% of our traffic sources. Three out of four visitors would come from organic search. But, we started to observe another important source of traffic in our statistics—the direct traffic.



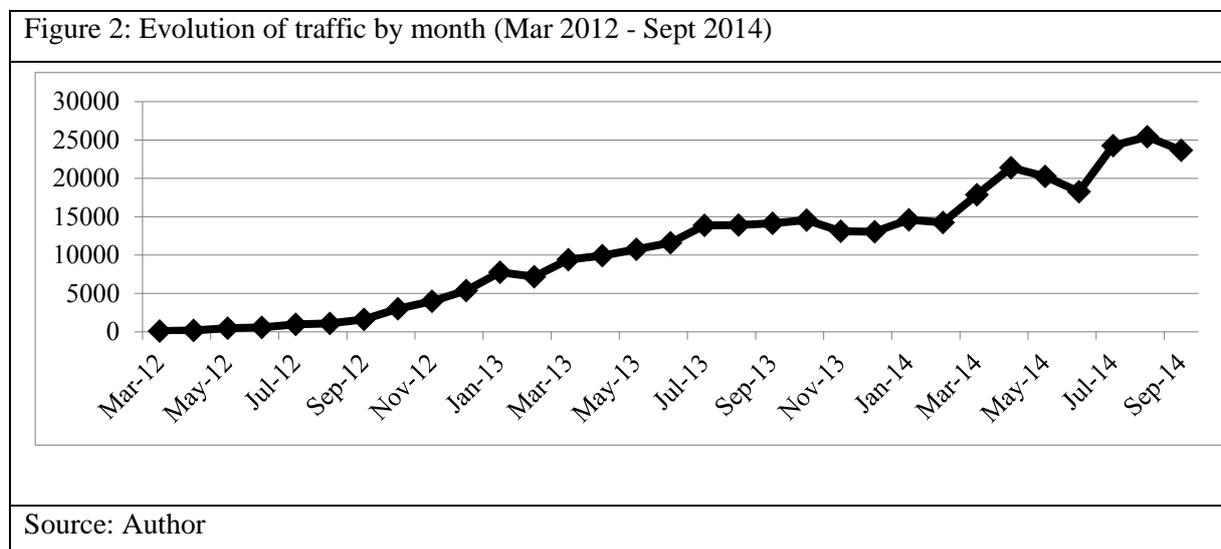
Surprisingly, 18% of people already knew our website and were able to enter the web address directly into the browser without performing any search or clicking from another website. Vast majority of these people had already visited our website some time ago, thus we assume that they bookmarked our

articles for later reading. This fact only proves that a well-organized and easy-to-read text is important not only for Google but also for a user.

Year 2013 was unexpectedly successful. During these 12 months, an unbelievable number of 132,500 unique visitors came to our website and spent an average of two and a half minutes reading our articles. Not only were they reading, but they were also surfing our website for more information. In total, 325,000 pages have been displayed to our visitors, and we were able to increase the monthly traffic by ~15x over the past two years (Figure 2).

Thus, we are convinced that this success is due to Search Engine Optimization. Since the launch of our website, search engines brought ~80% of all visitors to our website. The right mix of on-page and off-page optimization techniques, described in the previous chapters, were an essential part in building our search strategy. However, there is one more important step in the whole process of SEO – *keywords planning*.

Selecting the right keywords, which are worth optimizing for, is the key to optimization. It is necessary to prepare a plan, which is ambitious, yet realistic and based on data not on wishes.



We have focused on long-tail keywords, e.g. “Vienna to Bratislava train,” rather than highly compact ones, e.g. “Bratislava hotels.” As we assumed at the beginning of this research, the probability of securing the first positions in search results was high. Figure 3 compares the performance of the main keywords we have set as the core for search engine optimization.

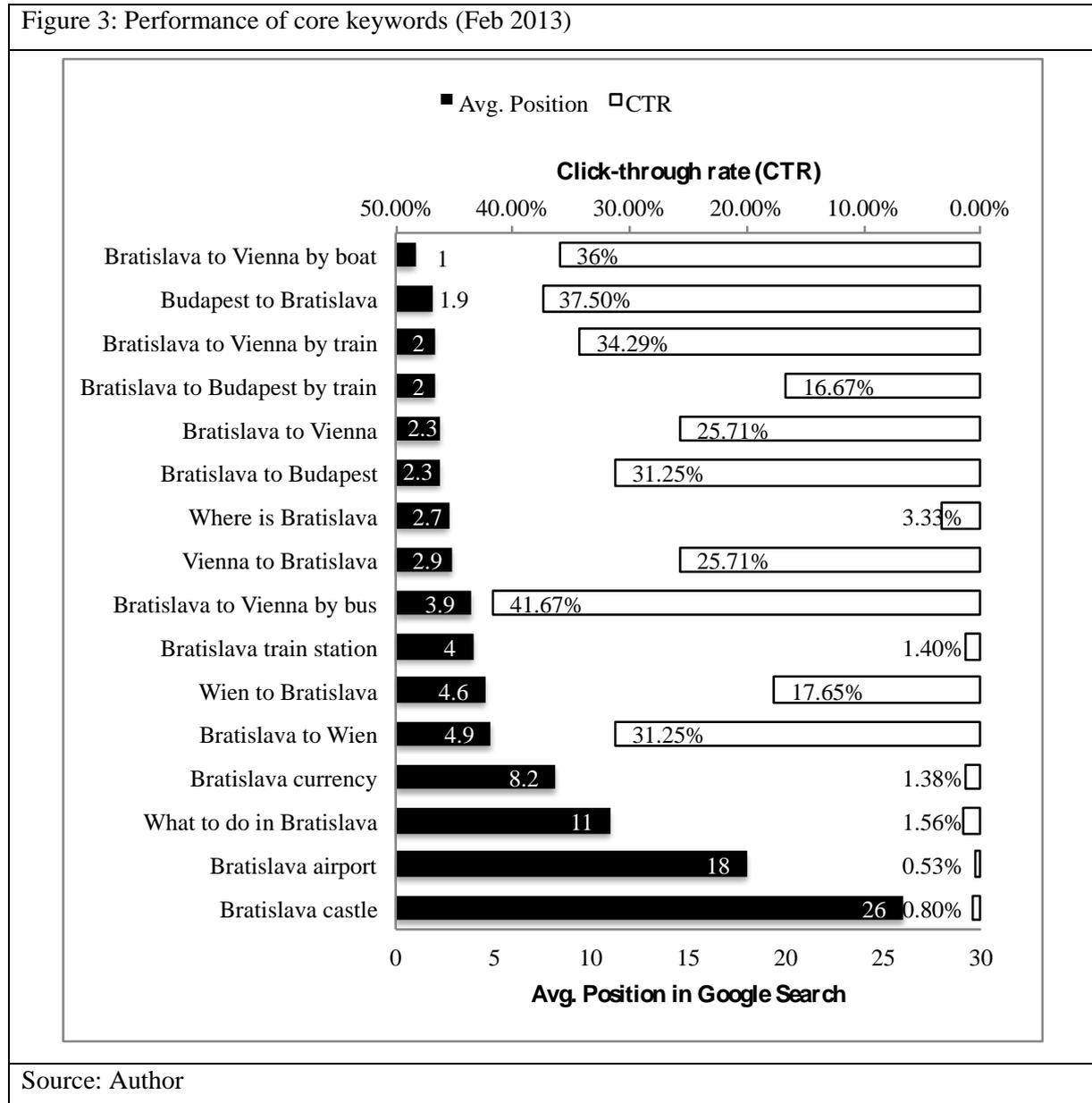
As we can see in the Figure 3, keywords on average positions between 1 and 5 receive significant number of clicks (CTR mainly between 25 – 45%). Perfectly matched website title with search phrase could be a possible reason why that is so.

To test the saturation of the market, we have selected all keywords with more than 100 search impressions. This would reduce very long-tailed and niche keywords searched to only a couple of times during last three months.

From the total of 201 keywords, up to 104 keywords had average position in Google search better than position number 10. In other words, 51.7% of the keywords, which were searched and led to our web site, were placed on the first search result page. This ratio, however, has changed dramatically nowadays. From August to October 2014, we displayed on 280 keywords with more than 100 impressions in Google search. Nearly 95% of these keywords were ranked on the first Google search page, and 45% even ranked in the first position.

From these results, we can assume that Bratislava travel guide websites are operating in a lowly saturated market with very little competition. In this market, it is easy to own near half of the top positions using selected keywords. Thus, our *hypotheses* are *confirmed*.

Figure 3: Performance of core keywords (Feb 2013)



Conclusion

Search Engine Optimization (SEO) is a long-term strategy, which should lead to a higher ranking on search results page and, subsequently, bring higher traffic to a website. Although the result of optimization is not guaranteed, the right mix of off-page and on-page optimization techniques is extremely vital.

Creating a unique and interesting website content is an absolute necessity. User-friendly URL structure, clear domain name, relevant titles, descriptive headings, and structured source code with quickly loading interface are another suggestions imperative to on-page SEO. Publishers cannot forget about the off-page aspect either and must focus on building quality links with relevant partners.

As part of the experiment, we have implemented all of the main SEO techniques to a website, which offers tourist information about Bratislava in English. We have prepared a list of keywords with high volume of searches and low competition upon which we have performed the optimization steps.

The results were surprising. We assume, that five months after the initial launch of the website (March 2012), Google started to recognize our content and pushed it higher in the results page. Thanks to SEO, 95% of the keywords we were focusing on are currently being displayed on the first search result page (rank<10) and 45% even ranked in the first position. These high rankings lead to a significant increase of traffic reaching 325,000 page views in 2013 and predicted to exceed 500,000 page views in 2014.

Further research should focus on estimating the importance of each SEO technique and finding the right mix for other industries. SEO, as a long-term strategy, should be accompanied by a short-term strategy (i.e. advertising in AdWords) to gain quicker results. Researchers, thus, should provide a tutorial on how to proceed while creating a complex digital marketing strategy.

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