Abstract - At present, internet is one of the major needs for everyone. Someone needs it for finding information, social networking, etc. But many of them use it for doing commercial. Obviously, all online companies need to have their own websites or bloggers. This is increasing a number of commercial websites or bloggers available on the internet, excluding any kinds of non-commercial websites or bloggers. Imagine if you have your own website, how could you do to make many people know and be able to visit your website easily? There are many answers of the question but the answer, which would be very cost-effective and align with most of internet users’ behavior, is to do search engine optimization. This project will focus on Google™. It will explain you how to start doing SEO with Google™ and provide you the basic SEO framework. Lastly, the project will give you an example of how to apply the SEO framework with an example website and will also show you the result.

Keywords - SEO, Google™, framework.

I. INTRODUCTION

Nowadays, the Web continues to expand at speed of light, search engines become an increasingly necessary part of daily online life. Today there are four ways people find content on the Web: Typing a URL directly, Clicking a referring link on another site, Selecting the site from a search engine results page, and Using social networking and social media sites. [1]

None of these are particularly better than the others. From a marketing perspective, all need to be tackled with varying amounts of time and money. Search engine marketing is search engine optimization involves strategic planning and tactical implementation. With the growth of using search engine, and the huge number of internet users using Google™ search engine, this project will focus only on the basic of how to do Search Engine Optimization (SEO) with Google™.

![Search Market Share](image)

Fig 1. Search Marketing Share, Jun 2009 [2]

II. SEARCH ENGINE OPTIMIZATION (SEO)

Search engine optimization (SEO) is the process of improving the volume or quality of traffic to a web site from search engines via "natural" or un-paid ("organic" or "algorithmic") search results as opposed to search engine marketing (SEM) which deals with paid inclusion. Typically, the earlier (or
Asst. Prof. Dr. Thotsapon Sortrakul and Mr. Chinapat Eksathit

Special Issue of the International Journal of the Computer, the Internet and Management, Vol. 17 No. SP3, December, 2009

higher) a site appears in the search results list, the more visitors it will receive from the search engine. SEO may target different kinds of search, including image search, local search, and industry-specific vertical search engines. This gives a web site web presence. As an Internet marketing strategy, SEO considers how search engines work and what people search for. Optimizing a website primarily involves editing its content and HTML and associated coding to both increase its relevance to specific keywords and to remove barriers to the indexing activities of search engines. Because effective SEO may require changes to the HTML source code of a site, SEO tactics may be incorporated into web site development and design. The term "search engine friendly" may be used to describe web site designs, menus, content management systems, images, videos, shopping carts, and other elements that have been optimized for the purpose of search engine exposure. [3]

SEO techniques can be classified into two broad categories: techniques that search engines recommend as part of good design, and those techniques of which search engines do not approve. The search engines attempt to minimize the effect of the latter, among them spamdexing. Some industry commentators have classified these methods, and the practitioners who employ them, as either white hat SEO, or black hat SEO. White hats tend to produce results that last a long time, whereas black hats anticipate that their sites may eventually be banned either temporarily or permanently once the search engines discover what they are doing. An SEO technique is considered white hat if it conforms to the search engines' guidelines and involves no deception. As the search engine guidelines are not written as a series of rules or commandments, this is an important distinction to note. White hat SEO is not just about following guidelines, but is about ensuring that the content a search engine indexes and subsequently ranks is the same content a user will see. White hat advice is generally summed up as creating content for users, not for search engines, and then making that content easily accessible to the spiders, rather than attempting to trick the algorithm from its intended purpose. White hat SEO is in many ways similar to web development that promotes accessibility, although the two are not identical. Black hat SEO attempts to improve rankings in ways that are disapproved of by the search engines, or involve deception. One black hat technique uses text that is hidden, either as text colored similar to the background, in an invisible div, or positioned off screen. Another method gives a different page depending on whether the page is being requested by a human visitor or a search engine, a technique known as cloaking. Search engines may penalize sites they discover using black hat methods, either by reducing their rankings or eliminating their listings from their databases altogether. Such penalties can be applied either automatically by the search engines' algorithms, or by a manual site review. [3]

This is a case to show how important of doing SEO. "Here's a common scenario: you hear a radio ad when driving down the road, or see a print ad while waiting in the dentist's office - an ad that catches your interest. By the time you get back to the office, though, you have forgotten the exact URL. So, if you're like 85% of web users, you turn to the search engines for help, keying in whatever you remember of the company name, URL, product name or description. However, if the company advertising hasn't first achieved top rankings for those related "key words," you will not be able to find the site you want." [4]

Next part will cover about SEO framework for Google™. The framework is a basic and white hats one.

III. SEO FRAMEWORK

The framework was created depend only on Google™ search engine’s algorithm and because of the limitation of time for
implement this project and private algorithm information, this framework is suitable for low-competitive key word phrases and websites. This basic SEO framework is mentioned the topics below:

a) Starting with Keywords
b) Web Pages Optimization
c) Link – Building
d) SEO Monitoring and Tracking
e) Using Pay-Per-Click to Augment SEO traffic

In the context of the Web, a keyword is a term that a person enters into a search engine to find specific information. “Most people enter search phrases that consist of between two and five words.”[5]

Then this is where the most important efforts begin. It is critical that you research and determine the most important and relevant keywords for your website. “The more targeted and specific your chosen keywords are, the greater the chance that visitors to your site will find what they are looking for. You want a high “click-to-sales” or high “visitors-to-customers” ratio. As such, you need to start thinking like your customers. Determine what it is that they need, what problems they have, and what solutions you can offer to help them.”[5]

Fig 2. Google™ SEO basic framework

After keyword phrases were determined, it is a time to do web pages optimization by using the keyword phrases. Google™ looks at the keyword factors and assigns a relevancy score for each page of your site. Web Pages Optimization part is mainly about keyword placement and how to apply the keyword phrases into web pages. Then obtaining links to your website is necessary for doing SEO and these are the basic ways to do link-building:

- Submitting your site to search directories, both general and industry-specific.
- Publishing articles and other content to feature in articles sites and blogs.
- Updating contents of your websites or webpages timely.
• Reciprocal linking, where you link to a site and that site links back to you.

For long-term, key to success on Google™ is to measure and monitor the performance and success your web site over time, modify your efforts, test, and repeat. This means you need to regularly monitor different metrics of your website. These are about what to monitor:

1. **Keywords** - This lists the actual keywords people typed into search engines to find your site.
2. **Search Engines** - This lists the search engines that visitors used to find your site.
3. **Referrals** - This lists the websites that brought traffic to your site and what percentage of the total traffic each “referral” site brought in.
4. **Page Views** - This represents the most viewed (or popular) pages on your site.
5. **Click Path or Visitor Path** - This shows the actual path that a visitor took while browsing through your site.
6. **Exit Pages** - These represent the last pages that a visitor views before leaving your site.
7. **Length of Session** - This shows how long visitors spend on each page and on your site in general. [5]

Last but not least for the SEO framework, if you see that it is quite hard to get a good position on SERP or you are in time-consuming situation, using pay-per-click ads is good choice as well. You can also use it together with doing SEO for a better result.

This report also provided an example how to apply the SEO framework in this report by creating a new website. It is also provided a SERP of the example website over three months time which is 10th position on Google™ search engine.

**IV. CONCLUSION**

The Google™ SEO framework in this report is a kind of basis guideline of doing SEO with Google™ for starters. The recommendations of using this SEO framework is that it is useful information for everyone and especially the ones who never or have a bit familiar with search engine optimization. And then they will be able to learn more in the advanced phase easily. Furthermore, monitoring your website users’ behavior and understanding what keyword phrases that they always search to find your websites will also help you doing SEO with more correct and proper keyword phrases.
REFERENCES


