A STUDY ON ADVANCED SEARCH ENGINE OPTIMIZATION TECHNIQUES IN WEB PROMOTION

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Abstract— **In this paper we discussed advanced Search Engine Optimization (SEO) techniques and methods that mainly focuses on assisting organizations on the world wide web notably increase their visibility by building website positioning on the popular search engines. Website can then be optimized to rank far better on Google, Yahoo, MSN (now active as Bing), AltaVista, LYCOS as well as the significant SERPS (*search engine results Pages*). The Web and Rank limited SEO services targets international and local searches, image search, and/or industry target search. This paper attempts to explore and evaluate the advanced SEO practices in the website promotion for Brand Value Cultivation and Nourishment, Social Mobilization, Managed Internet Marketing, Web Ranking etc. Moreover, we give an in-depth analysis of popular SEO tools and techniques on similar page checking, back link anchor text analysis, re-direct check, domain age analysis, keyword traffic estimation, URL re-writing, reciprocal link checker, domain statistics, page ranking, keyword density, book marking, article submission, press release submission (PR Submission), Directory Submission, Off-Page Blog Posting, Forum Posting, Off-Page Inbound Link URL, Pay-Per-Click Management (PPC Management), Social Media Optimization(SMO), Classifieds Ads Submission etc.**

Keywords- Search Engine Optimization (SEO), Search Engine Results Pages (SERPS), Uniform Resource Locator (URL), Website Promotion, Web Ranking, Page Ranking, Keyword Density, Back Link, Press Release Submission (PR Submission), Pay-Per-Click Management (PPC Management), Social Media Optimization (SMO), Return on Investments (ROIs), SEO Audits.

I. INTRODUCTION

In today's world of cutthroat competition, the Web Promotion plays a key role to increase the business over the Internet. Web Promotion does this by increasing the traffic on a particular website. It means using a ways and different techniques to increase the volume of the visitors to the website and also to increase the number of conversion of the visitors into the customers. It is a continuous process and it requires a consistent effort from the web promotion specialist to get a high ranking for the website and then making sure that it receives the greater business on the World Wide Web. This is achieved by using advanced Search Engine Optimization Techniques. The SEO techniques may also helps to create better Return on Investments (ROIs). These SEO techniques are observed from four different aspects: Structure Optimization, Keywords Optimization, Content Optimization and Link Optimization. Based on these factors, this paper gives immense knowledge on advanced SEO tools and techniques like back link anchor text analysis, re-direct check, domain age analysis, keyword traffic estimation, URL re-writing, reciprocal link checker, domain statistics, page ranking, keyword density, book marking, article submission, press release submission (PR Submission), Off-Page Blog Posting, Forum Posting, Off-Page Inbound Link URL, Pay-Per-Click Management (PPC Management), Directory Submission, on similar page checking, Social Media Optimization(SMO), Search Engine Friendly URLs, Classifieds etc.

This paper attempts to elaborate and evaluate all advanced SEO techniques and their effectiveness on the popular search engines. In addition, we figure out the importance of SEO Audits of the websites

II. ASSORTMENT OF DIFFERENT ADVANCE SEO TOOLS AND TECHNIQUES

SEO improves the structure and content of website according to the rules and standards of search engines and make it more suitable for search engines, as a result, it will gain the higher rank for search engine. Potential customers who are really interested in some products can directly reach business's websites through search engines, which can increase web pages views. Through search engine optimization the website can be improved in the web structure, lay-out, content and function to meet the rules of search engines so that the improved website performs better in top most search engines like Google, Yahoo, MSN (now active as Bing) etc. There is no single technique available to do SEO for the website, it uses collections of regular advanced optimization principles and methods. Attention the following advanced SEO tools and techniques:

A. Back Link Anchor Text Analysis

Back links are the links that are directed towards your website. Also knows as Inbound links (IBL's). The number of back links is an indication of the popularity or importance of that website. Back links are important for SEO because some search engines, especially Google, will give more credit to websites that have a good number of quality back links, and consider those websites more relevant than others in their results pages for a search query.

Quality back links is one of the most important factors in Search Engine Optimization. It is not enough just to have a lot of back links, it is the Quality of back links along with the Quantity that help you rank better in Search Engines. A back link could be considered as a Quality Back link if: a.)It links to your website with the keyword (key phrase) that you are trying to optimize for. b.)The Theme of the back linking website is the same as your website. To do this back link analysis there are lots of popular tools are in the market like- Backlink Watch, Smart Backlinks, Link Diagnosis Tool, Analyze Backlinks etc. Benefits of back links are Increase Traffic, Increasing your popularity, Increasing your page rank, Long term sustainability etc.

B. Re-Direct Checker

Many directories make redirects to external sites as search engines are still mislead by some types of redirects, webmasters need to know which type of redirection is used to their site. This information is also useful to directory owners as they are not always aware of the techniques used to count the clicks to external sites. It is very important that when a search engine comes to crawl your website it is able to follow any redirects you have set up.

• What URL Redirect really mean? : URL Redirection is a technique that can be used to make a web page available under many URLs. This is also known as URL forwarding, domain forwarding or domain redirection.

• Why URL redirection is needed? : There may be several reasons for webmasters to use URL redirection. A few are listed below:

a. Often users mistype wrong URL in web browsers like: instead of typing "google.com" they type in "gooogle.com" etc. So corporations often register these "misspelled" domains and redirect them to the correct location. This helps them in protecting their potential customers to loose track.
b. Two or more websites might merge and want to keep a single entry point.
c. A website might need to change its domain name.
d. The owner might move his/her website to a new server or location.

C. Reciprocal Link Checker

Reciprocal links have become one of the MOST popular methods of getting backlinks for your website. Although we don't really recommend them, a lot of SEOs have found success with their 2-way / 3-way reciprocal link exchanges. This tool helps you ensure that your link partners are linking back to your website.

D. Domain Age Analysis

Domain Age Analysis is also a factor to determine the site's relevancy in search and in people's perception. The older domains have a higher frequency to acquire the number one position in terms of rankings in search engines as the many search engines favors and trust older domains. In fact the many topmost search engines like google, bing assigns more importance to the domain age.

E. Directory Submission

A directory is an index of websites compiled by people rather than a Crawler (Web robots). Directories can be general or divided into specific categories and subcategories. A directory's servers provide relevant lists of registered sites in response to user queries. Directory Registration is thus an important method for building inbound links and improving SEO performance. The organizations of web directories make people find the right links under the right categories. However, the decision to include a site and its directory rank or categorization is determined by directory editors rather than an Algorithm. Some directories accept free submissions while others require payment for listing. While submitting your link to a web directory you should be careful about its PageRank. If it its PageRank is healthy then it means the search engines regard it as a "trustable" web directory. The most popular directories include Yahoo!, The Open Directory Project, and LookSmart.

F. Blog Posting

Blog Posting means creating a blog on blogs site like wordpress.com, yahoo.com, weblogs.com, Dmoz, blog.com, blogger.com etc and then keep posting some articles called blog posts into them on regular basis. Put link to your website in the article by hyper linking a keyword for your site into that article. But keep in mind that you have to update your blog on as frequent basis as much you can so that google or any other popular search engine start crawling it on daily basis after some time as google or any other popular search engine like the pages whose contents are updated regularly.

G. Social Bookmarking

Social Bookmarking is a method for web users to organize, store, manage and search for bookmarks of resources online. It is the use of a web-based site that stores your tags and the tags of people you know, so you can benefit from their bookmarks as well as your own. So therefore tagging is a significant feature of social bookmarking systems, enabling users to organize their bookmarks in flexible ways and develop shared vocabularies known as folksonomies.

H. Press Release Submission (PR Submission)

Press release distribution is one method of delivering news of events taking place within your organization. It is written to rank well in search engines for your website keywords as PR distribution send press release to media, journalists, bloggers and online audiences across the world. There are many benefits of press release submission including backlinks from news sites, ranking in Google news, and potential media coverage. When writing your press release submission, make sure that people will want to read it. Try to make a press release submission similar to a newspaper article and include facts that get the reader's attention and make them interested in learning more about your website. Press release websites are generally highly ranked and indexed by Google very quickly. When you submit a press release it can be ranked within a week. A well written press release submission can

send more traffic to your website and raise your chance of getting links from other authority websites. In order to get as many views as possible, press release distribution should be aimed at the most popular and trusted magazines, editorials and websites in your industry. A very good press release can increase your traffic and give you authority within your industry, while also improving your business.

I. Keyword Density Analysis

In the context of SEO keyword density is the percentage of times a keyword or phrase appears on a web page compared to the total number of words on the page. Keyword density is important because search engines use this information to categorize a site's theme, and to determine which terms the site is relevant to. The perfect keyword density will help to achieve higher search engine positions. Keyword density needs to be balanced correctly (too low and you will not get the optimum benefit, too high and your page might get flagged for "keyword spamming"). Many SEO experts consider the optimum keyword density to be 1 to 3 percent. Using a keyword more than that could be considered search spam. To calculate keyword density in its simplest form, you divide the number of times that you have used a specific keyword by the total number of words in the text that you are analyzing and multiply the result by one hundred to achieve your percentage.

Therefore: Keyword Density = (Nkr / Tkn) x 100

Where: Density = your keyword density, Nkr = how many times you repeated a specific keyword, Tkn = total words in the analyzed text.So, if your article or piece of content (the text you are analyzing) is 500 words in length and you have used your keyword 15 times, the keyword density for that keyword is:

Keyword Density = (Nkr / Tkn) x 100 = (15 / 500) x 100
= 0.03 x 100
=3 = Keyword density = 3%

J. Pay-Per-Click Management

Pay-Per-Click (also called cost per click) Management is an extremely tactical internet advertising strategy to acquire immediate traffic to the website. It is almost an alternative for search engine optimizing but with a cost associated with each visitor. Success in Pay-Per-Click (PPC Advertising) depends on applying search engine specific principles and techniques. A kind of bidding for certain search terms in search engines is associated in Pay-Per-Click Management.

The cost per click varies depending on the popularity and the demand that key words possess. The higher the demand the more the cost, it could be few cents for lesser competitive terms and can vary up to few tens of dollars for high demand key words. This on-going auction style platform dictates the listings in such a way that at the top of the results page are advertisers who are paying to be listed under the specific keyword(s), which you have searched for.

K. Social Media Optimization

Social media optimization (SMO) is a method by which you make your website content easily shareable across the social web. It is the process of increasing the recognition of a product, brand or event by using a number of social media outlets and communities to generate viral publicity. It also drives good quality traffic to your website from social networking websites and also assists in boosting link popularity & gaining non-reciprocal links. SMO includes using RSS Feeds (RSS means Really Simple Syndication (RSS), is an XML-based format for content distribution), Social News, Bookmarking sites, Social media sites and Blogging sites.

L. Search Engine Friendly (SEF) URLs

On today's Internet world, dynamic or database driven websites are very popular. To pass the information between the web pages the easiest way is to use query strings, it's a string of information tacked onto the end of a URL after a question mark. Well, most search engines (with a few exceptions – namely Google) will not index any pages that have a question mark or other character (like an ampersand or equals sign) in the URL. So, these type of website aren't being indexed on popular search engines. The solution is URL rewriting –for SEF, the Search Engine Friendly (SEF) URLs are also known as clean URLs that make sense to both humans and search engines because they explain the path to the particular page they point to. In SEF we convert dynamic URLs to Static URLs as Static URLs are known to be better than Dynamic URLs because of a number of reasons:

1. Static URLs typically Rank better in popular Search Engines.
2. Search Engines are known to index the content of dynamic pages a lot slower compared to static pages.
3. Static URLs are always more friendlier looking to the End Users.

I. IMPORTANCE OF SEO AUDITS OF THE WEBSITES

SEO Audit is the vital step to search engine optimization. An SEO audit ensures that your site is receiving the full benefit of your link building strategy and it also helps to identify any potential issues your site may have in the search engines. The potential issues may be major or minor that could suppress your search engine rankings. The SEO Audits report should contain detailed information about the following issues:

• Internal & External Link Strategy
• Potential Crawl issues
• Potential duplicate content issues
• Website Architecture
• Social Media Presence
• URL Structure
• Backlink details
• Meta Tags & Heading Tags
• Broken Links
• Header and Footer Links
• 404 Custom Error Page

- Presence of Robots.txt File (used to restrict search engine crawlers from accessing sections of your website)
- Pages Index in Google/Other popular search engines.
- Link Popularity
- Possible Recommendations after review of SEO Audit Report by SEO Expert.

IV. CONCLUSION

The research study on the search engine optimization has great significance in web promotions and in broad web application prospects. The web Promotion plays a key role to increase the business over the Internet and hold the key to success of e-commerce for better return on investments. This paper explores the new advanced optimization techniques for keywords, links, URLs, social media, bookmarking, blogging and is bound to be long term constant study.

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Apply these 12 website speed optimization techniques to meet user expectations and boost your performance. A low performing website has a poor user experience and as a result gains less promotion in search results. Since December 2017, the Google search engine has started ranking also based on mobile versions of pages, even for desktop searches. The goal of this decision is to protect users from the websites that have low performance and aren't responsive to all devices. Usability. Web fonts have become very popular in website design. Unfortunately, the use of web fonts has a negative impact on the speed of page rendering. Web fonts add extra HTTP requests to external resources. The following measures will help you reduce the size of web font traffic 21 insanely practical SEO techniques for higher rankings and more search engine traffic. There's a dead-simple technique that can get your YouTube videos to rank for competitive keywords in both YouTube and Google: write 200+ word video descriptions. When most people upload a video to YouTube, they mindlessly toss a few words into the description box: That's a HUGE mistake. I realized that the keyword "SEO case study" also got a decent amount of searches every month: So I decided to embed that long tail keyword into the blog post title: And I hit the #5 for "SEO case study" in a few short weeks. As you might expect, the keyword "SEO case study" is MUCH less competitive than "white hat SEO".