

# Search Engine Optimization (SEO) Techniques

Kanika Arora

Student of Computer Science, Sharda University, Greater Noida, India

**Abstract:** *The website management is becoming hot topic and search engine has more are trying to make efforts for Search Engine Optimization (SEO). SEO pertains to the activity of optimizing individual websites and web pages to get higher rank in the search results. This system provided good performance in monitoring the skills of SEO of website, and provides the consistent information support for ongoing optimization on search engine and making search engine marketing strategy. This research paper provides the analysis of search engine optimization techniques that can help to improve ranking of a website or to get more number of viewers or to increase visibility of a website.*

**Keywords:** SEO techniques, keyword analysis, Internet marketing, Website design methods, Linking

## 1. Introduction

We are living in the world of technology where internet is the primary services of information. Everyone is using the internet for large as well smaller information either he/she is a student, businessman, a shopkeeper, a CEO in multinational company, a teacher etc. There are millions, billions web pages available on internet, if user search for particular information then there are millions billions web pages related to that information. So it difficult for user to understand which information is relevant or not. So Search Engine becomes an integral part of everyone's life to search information. We depend on search engines to provide us right information at a right time. To satisfy the user requirements a search engine must find a relevant information matching a user query and display information the user. Major search engines Google rely on page reach to quality of a page. Higher page rank indicates website is very popular. In order to score higher rank in search engine result many website promotion techniques are used by website designers. SEO is the process which improves the volume and quality traffic to a website. Search engine optimizers use search engine optimization techniques which follow search engine guidelines are called white hat SEO techniques. Sometimes search engines optimizers use website promotion techniques in web page development which does not follow the search engine rules and policies. Such techniques are called black hat SEO techniques.

This paper discuss the features of SEO techniques which provide reference for the developers of website in their search engine optimization.

**Golden Rule of SEO:** when building or modifying your website whether you adding images, restructuring your links, or changing your written content always base your decision improving the user's experience.

### Implementing SEO

- 1) **Keywords:** Keyword must be analyzed for websites when optimization process will perform. Some important rule for selection of keywords are:
  - The specific keywords list must be used for analysis of keywords.
  - Use those keywords which takes webpages into first 5 links of search results.

- Keyword on link must be found on target.

To assist in analyzing keywords, you can also use online tools like Google add word selector tools, Google Keyword planner, Keywordtool.io etc.

- 2) **Finding the right Keywords:** Steps for finding the right keyword
  - Determine what you are existing and what customers looking for. Ask customers what words or terms they are used for search your products.
  - Check out the competition to see how many other websites are listed in search engines for particular keyword. We can use tools such as Google Page Rank which goes 1 to 10 to see which websites hold the top position.

**Page Rank:** Page Rank is an algorithm used by Google Search to rank web pages in their search engine results. In short Page Rank is a "vote" ,by all the other pages on the Web, about how important a page is . A link to a page counts as a vote of support. If there's no link there's no support [1].

- 3) **Search Engine Optimization Techniques:** SEO involves wide range of techniques some of which you may able to do yourself and others that will require web development expertise. SEO includes two factors On Site Optimization and Off site Optimization [2]. White Hat Techniques are:
  - a) **On Site Optimization techniques:** On Page SEO deals with anything you have direct control of, in the code or content of your website eg text, headings, images, links etc. basically anything you implement or upload to your site is considered on-page SEO[3]. It is the practice of optimizing individual web pages in order to rank higher and earn more relevant traffic in search engines. On site optimization includes websites design elements such as keyword formatting, keyword in title tag, keyword in meta tag, external link, position of keywords etc. which is controlled by site itself.

- **Title tag:** Title is the biggest ranking factor. The page title tag <title></title> tells both the user and search engine about the topic of the particular page. The title is visible in the title bar of the web browser as well as the headline of

the search engine result. Make sure the title tag on each page of the site is unique and descriptive. It should be no longer than 65 characters.

- **Meta Keywords:** The meta description tag contains description of page that is informative and reflect the content of a web page. Those keywords no longer carry much weight with search engines. The website will be indexed if related keywords are found in meta description tag.
  - **Meta Description:** Meta description is a place where you need to put the brief description about your page. Make sure every page is unique description. It should be no longer than 160 characters[4].
  - **Keyword Density:** Density of keyword means frequency of keyword present on web page compared to total number of words on the page. Density of keyword should be within 2% to 8% for improving website ranking.
  - **Image Alt Text:** A place where you can provide more information about what is in the image and where you can target keywords. Alt text are short and descriptive which reflect the body text that describe the image.
  - **Header Tags(H1,H2 AND H3):** HTML Heading Tags are equally important for search engines point of view.
  - **Internal Linking:** Webpage contain link to the other related websites. Internal
  - Links are hyperlinks that point to the same domain[5]. More number of links improves ranking of a websites.
  - **Permalinks of web Pages:** The meaning of Permalink is URL(Uniform resource Locator). Keeping your URL's short and descriptive of your content will improve the user experience and lead to better crawling of your websites by search engines.
  - **Navigation:** Ordering your navigation in a logical and concise manner will assist the user means they can easily access your site.
- b) **Off Site Optimization:** Off page optimization include those techniques that can be done outside your website to increase traffic to your websites. Off Pages optimization are the strategies for Search engine Optimization that are done off the page or that is not directly related to page content. Opp Page optimization includes:[6]
- **Groups:** Join groups and post your comments with link of your website or webpage. This type of optimization we don't need to perform on our website.
  - **Create company websites on social networking sites:** Place links of social networking sites like facebook, and twitter on your website .also create webpage and links like facebook, instagram, twitter etc on your website. This will help to visit more user on your websites.
  - **Link Building:** Link Building is the process or creating the links in order to improve the ranking of your websites. Link building helps to create the link on well reputed websites and increase the ranking of your websites.
  - **Blogging:** Someone said, Blog stand for better Listings on Google. Blog is a type of open area where one or more users can ask their questions and they can be responded with their relevant answers. So, you can provide the answer with your website links.

### Black hat Techniques

- **Keyword Stuffing:** Spammers repeat the keywords in various HTML tags like title, meta, body etc[7].
- **Hiding Techniques:** Spammers hide the sentences, text and links so the user are not able to see them.
- **Content Spamming:** Spammers copy the content from high ranking website and paste that content in their website to boost their site ranking position.

### Comparison between Black Hat and White Hat:

- White Hat technique that search engine companies recommend as a part of a good design but in black hat search engine do not approve.
- White hat SEO always target the audience/visitors to your website instead of targeting the search engines but black hat SEO always target the search engine as its first priority.
- White hat is used by all types the users but black hats are mostly used by those users who want a high ranking in a short period of time in small terms business.
- White hat SEO brings slow but long lasting growth ranking of the website for sure but black hat SEO brings a fast but short span of higher rank.
- White hat focus on a human audience while black hat violates search engine guidelines.

## 2. Result

This paper explores the white hat and black hat techniques. So in comparison of black hat, white hat technique is better for websites because it follows the search engine guidelines, takes a long term approach, focus on human audience means making changes that are beneficial to a site's visitors.

## 3. Conclusion

This paper studies page ranking, search engine optimization techniques on site and off site optimization. Website ranking in search result is strongly depends on how SEO implemented. White hat SEO techniques return quality content. These techniques give slow results but for long time. These are beneficial to both users and as well as search engines. The goal of paper is to provide awareness.

## References

- [1] Page L., Brin S., Motwani R. and Winograd T., The PageRank Citation ranking: Bringing order to the web, Technical Report, Standford Info. Lab (1999)
- [2] Wang F., Li Y. and Zhang Y., "An Emphirical study on the Search Engine Optimization Technique and Its Outcomes" Proc. 2nd International Conference on AIMSEC, 2767- 2770 (2011)
- [3] Zhu V., Wu G. and Yunfeg M., Research and Analysis of Search Engine Optimization Factors Based on Reverse Engineering, Proc.3rd International Conference on Multimedia Information Networking and Security, 225- 228 (2011)
- [4] Kent P., Search Engine Optimization for Dummies, Wiley Publishing, 2, 67-68 (2003)
- [5] Lalit Kumar and Naresh Kumar., SEO techniques for a website and its effectiveness in context of Google

Search Engine , ICSE( International of Journal of Computer Science and Engineering,2347-2693(2014)

- [6] Najam Najar : Exploring SEO Techniques for Website,Department of Computer Science and Engineering Chalmers University of Technology Goteborg, Sweden, June(2009)
- [7] Ayush Jain., The role and Importance of Search Engine and Search Engine Optimization (IJETTCS), 2278-6856, (2013)

### **Author Profile**



**Kanika Arora**, I am pursuing MCA (Master of Computer Application) from Sharda University, Greater Noida. My Research is Search Engine Optimization