

SEARCH ENGINE OPTIMIZATION

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ABSTRACT

Search Engine Optimization (SEO) is the activity of optimizing web pages or whole sites in order to make the search engine friendly, thus getting higher positions in search results. This paper explains simple SEO techniques to improve the visibility of your web pages for different search engines, especially for Google, Yahoo, and Bing.

Keywords: *SEO Techniques, Onpage SEO, Offpage SEO, Black hat SEO, White hat SEO, SEM, SMO*

I. INTRODUCTION

Search engine optimization (SEO) refers to techniques that help your website rank higher in organic search results, thus making your website more visible to people who are looking for your product or service via search engines. SEO is a technique for:

designing and developing a website to rank well in search engine results.

improving the volume and quality of traffic to a website from search engines.

marketing by understanding how search algorithms work, and what human visitors might search.

II. IMPORTANCE OF SEO

The main importance of SEO is in internet marketing because 90% users use search engine to find products and information also most of the people don't go beyond 20-30 webpage while searching on the search engine. If the customer has intention to buy some products on the internet and if your website is not listed on top of the search engine results then its high probability that you would lose your business. They simply visit some other website. So SEO helps to achieve the ranking and increases the chances of spectators coming to your website.

III. BENEFITS OF SEO

The benefits of SEO is in to increase the human traffic on your website, business or any product by getting desired customer to see it which leads to increase in brand visibility, quality sales, brings active buyers, increases your profile against your competitors. Thus, it ultimately increases Site popularity and rank of your website in search engine.

IV. WORKING OF SEARCH ENGINE

Search engines have one objective – to provide you with the most relevant results possible in relation to your **search query**. Search engines perform several activities in order to deliver search results:

Spider “crawls” the web to find new documents (web pages, other documents) typically by following hyperlinks from websites already in their database

Search engines indexes the content (text, code) in these documents by adding it to their databases and then periodically updates this content

Search engines search their own databases when a user enters in a search to find related documents (not searching web pages in real-time)

Search engines rank the resulting documents using an algorithm (mathematical formula) by assigning various weights and ranking factors

V. SEO TECHNIQUES

Domain name strategies locates an organization or entity on internet. It represents IP resources such as computers to access internet, Domain names selection should increase the search engine ranking using keywords, advertising terms, product names etc.

Linking strategies is used on the text in link that should include keywords.to increase links-creative content, good links, target a list of sites from which you can request links.

Keywords is used to match with the query a person enters into search engine to find specific information and their frequent use in page increases ranking.

Title tags is text snippet that appears in upper left corner. They are blue link that search engine show when they list your webpage on SERP and this is one place on webpage where your keywords must be present.

Meta data & description tags are usually the first place a search engine will look to find your text to put under your blue link when they list your website on SERP.

Alt tags can be read by Search engines that accompany JPEG, and GIF images. Every relevant image should have an alt tag and this tag should be written to comply with your keyword objectives. The text in an alt tag is believed to be given additional weight.

Indexing when a search query is entered, the search engine looks in its index for the most relevant information and displays the results on the SERP. The results are then listed in order of most relevant and authoritative.

Avoid black that techniques that search engines do not approve and attempt to minimize the effect of. These techniques are also known as spamdexing.

sitemap are responded by engines positively especially on larger sites with several levels. The site map is also a useful way of aiding the navigation of a spider for deep crawl purposes.

-Update your site regularly

VI. ONPAGE SEO

On Page SEO is done on the page includes contents, tags. Various forms of On Page SEO technique are there-

Use of Heading Tags- Visitors only read first few characters of heading of the webpage, so heading tag known

as H1 tag should be important keywords in the heading tag.

Alt tags- Alt tags must be used so that visitors are able to see the content behind the image when they move over mouse on the picture.

Meta tags- These tags describes what the page is about. So if we don't include important keywords in meta tag, we may miss a chance that someone comes across on our website.

-Sitemaps- Sitemaps lists the urls in our website is helpful to both visitors as well as search engines to crawl the website as search engine makes the index of those websites.

VII. OFFPAGE SEO

Off page optimization means giving back links to our websites includes advertising the website on blog, social networking media like orkut, Facebook, twitter. It includes incoming links from other websites. Make sure to have good incoming links. Link building is the SEO practice of obtaining links from external websites to your own to improve both direct referrals (i.e., people clicking on the links), and search engine ranking. Link building is all about increasing your site link popularity.

VIII. SEM & SMO

SEO is part of the broader topic of Search Engine Marketing (SEM), a term used to describe all marketing strategies for search. SEM entails both organic and paid search. With paid search, you can pay to list your website on a search engine so that your website shows up when someone types in a specific keyword or phrase. Organic and paid listings both appear on the search engine, but they are displayed in different locations on the page.

Use of social networks like Facebook, Google+, Twitter, and LinkedIn has exploded over the last few years. the amount of social activity that a webpage has on social networks (shares, recommendations, likes, links, +1.s, etc.) is an important factor in that pages ability to rank on the SERP. Simply put, search engines have realized that content shared on social networks is extremely influential, and should therefore rank higher.

IX. WHITE HAT SEO

White Hat SEO techniques follow some rules and guidelines suggested by the search engines. It is also called ethical because it follows certain legal guidelines and policies to achieve high ranking. Some most popular white Hat SEO techniques include Quality Content, Quality inbound links, certain tags, effective keyword use.

X. BLACK HAT SEO

These techniques on the other hand are unethical way of manipulation of search engines algorithm. These techniques are not recommended as there is a risk of website getting removed from the search database index. So it does not always increases the ranking but also increases the chances of the website getting banned by the search engine. So these techniques are not approved by the search engines. Some most popular Black Hat SEO techniques include **keyword stuffing** means loading a webpage with the keywords, **gateway Pages** which takes the visitor to the page where products or services are promoted, **cloaking** purpose is to present a different page

to the visitor and the search engine, **page hijacking** which takes to the spammed sites, **mirror websites** by hosting multiple websites-all with similar content but using different urls.

XI.TO-DON'T LIST

Flash and shockwave

Image only sites

Image maps

Misspellings, JavaScript or HTML errors

frames

PDF files

Drop down menus

password protected pages

XII. SUMMARY & CONCLUSION

The availability of information on the internet is growing dramatically. But it will be useful if the user finds the correct information in less amount of time. So in order to stand out from the competition means in order to increase the sites visibility, Search Engine Optimization (SEO) plays an important role. SEO is cost-effective process to promote internet marketing. It helps to bring the customers to the website. SEO can be done by two ways- on page and off page SEO. SEO is a process consist of various stages keyword research, goal setting, page optimization, content development, link building and then to follow-up the entire process.

This paper has shown SEO research that has done to increase website ranking and thus to fetch the website traffic. In the upcoming years, a simple approach is not enough. Efficient SEO requires managing three basic pillars- the content, the keyword and the link building. With the help of these three pillars one can create basic SEO structure that will support high ranking of the web pages in the coming future.

REFERENCES

- [1] Gurpreet Singh Bedi, Ms.Ashima Singh, "Analysis of Search Engine Optimization (SEO) Techniques", International Journal of Advanced Research in Computer Science and Software Engineering, Volume 4 Issue 3, March 2014,
- [2]. David Burdon,, "the basics of search engine optimization (seo)"june 2005
- [3] Sgoliger,"Introduction to Search Engine Optimization" ,