

SEO Techniques for Enhancement of Site Visibility

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Abstract: Search Engine Optimization (SEO) relates the activity of optimizing individual web pages or a website to acquire higher ranking in the search results. Some of the popular search engines are Google, Bing, Yahoo etc., Search engine users are interested only in top few search result. A Website with high domain authority and page authority will automatically rank into the top results in search engines. Ranking of web pages are based on internal and external linking, page speed optimization, content present in the site and the relevant keyword. SEO is typically a set of “white hat” best practices that webmasters and Web content producers follow to help them achieve a better ranking in search engine results. We customize the site with proper interlinking and the relevant keywords to rank our site in the first page of the search results.

Key words: Internal Linking · External Linking · SERP · Page Speed Optimization

INTRODUCTION

Search Engine Optimization (SEO) [1] is the process of affecting the visibility of the site. It is mainly used to display our site on the top of the web search result. To do so, our site should have SEO friendly themes and it should be Niche/ Micro Niche Site, it should be hosted on 99% “Up Time Web Hosting” server. Our site name should be keyword/Branding based name. Site name should be easy to remember and should not be more than three syllables. A website consists of several Webpages before starting with each page decide about the content of the page, Keywords, Title and so on. Before selecting keyword know about the keyword competition, search volume of our keyword and bid rate. To decide about these factor Google search engine has provided a tools such as Google AdWords keyword planner, Google Trends etc., which gives result depending upon keywords which have been indexed on it. Another important factor for indexing page is to give proper Links. Links are provided through anchor tag and mainly used to allow navigation between different relevant Webpages. Links are generally categorized into two types depending upon link source and destination. If there is a link from some other relevant site to our site then it is known as *Inbound*

Links or *Backlinks*. If we provide link from one page on a domain to different webpage on the same domain then it is a *Internal Links*. Most internal links are actually *Navigation Link/Nav Link*. It all falls under the category of On-Page Optimization. If we Provide link from our site to some other relevant site then it is *External link/Outbound Link*. All Links in the above mentioned categories can be turned into *Dofollow Link* and *Nofollow Link*. Generally all the links are dofollow links. Dofollow links allow search engines to follow them and reach our website.

Example of Dofollow: `Google`

Here the anchor text is Google if we click on the anchor text it will navigate us to Google Search Page.

Nofollow links are visible only to users not to search engine. Nofollow is an HTML attribute used to instruct search engines crawler that a hyperlink should not influence the ranking. It is intended to reduce the effectiveness of certain types of search engine spam.

Example of nofollow: `Google`

SEO can split into two categories as On-page SEO and Off-page SEO [2].

ON-PAGE SEO: It refers to all the things that we can do ON our website to rank higher, such as page titles, meta description, keyword, content, permalink, images and internal linking etc.,

Page Title: Page Title is one of the most important ranking factor. Every page on our site should have unique title preferably relevant to keyword.

Meta Descriptions: Write a short description of our content. These descriptions are an important place to include relevant keywords for our content, as these are used within the search results when our page is listed. Meta Description can be any length but search engine limit into 160 characters.

Keyword: A keyword, in the context of search engine optimization, is a particular word or phrase that describes about the contents of a Web page. Things to check in the article while optimizing it are keyword density, keyword prominence, keyword proximity.

Keyword Density: 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. However, try not to excessively repeat and overuse keywords. Keyword stuffing will leads our site to be ban by search engines. Try to keep our keyword density roughly around 2-3% but not over than 3%.

Example: If our article has 500 words then keyword can be used in article for 3% of 500 which is 15 times.

Keyword Prominence: Keyword prominence is the one of the various factor in Search Engine Optimization. Keyword prominence refers to using keywords at, or near, to the start of a web page, sentence, title, meta description and so on.

Keyword Proximity: Keyword proximity refers to the closeness between two or more keywords. In general, the closer the keywords are the better.

Example:

- How keyword affects the search engine ranking
- How Keyword Density Affects Rankings in Search Engine

Using the example above, if someone searched for "search engine rankings, " a web page containing the first sentence as a keyword is more likely to rank higher than the second. The reason is keywords are placed closer together "Search Engine Ranking" [3].

Tracking Keyword: Keyword plays a major role in SEO, because user need to get the relevant result when they type anything in the search bar. In other terms this can be stated as, this is the particular word or phrase that describes about the contents of a Web page [4].

Initially once the developer uses some keyword they need to know about their ranking in the search engine. For this purpose we can use Keyword Rank checker tools as "MOONSY" and "SERPBOOK".

Permalink: Permalink is a URL that points to specific webpage. Permalink can contain maximum of five words in it. If we are posting an article regarding Login script in PHP then our permalink can be something like "http://www.xyz.com/create-login-script -in-php/".

Images: Using Images with content is a great way to make our site visually more appealing. Insert only relevant images to the article to make it more SEO friendly. The entire uploaded image has title and alt tag, make it same as that of page title so that it help people to find our site when they are performing search on Google-Image.

Content: Write unique article so that our site doesn't have any problem in directory submission. When writing an article, one should breakup the content into smaller sections & paragraphs to make it easier for people to read. Heading tags can be in the range of H1 to H6. Usually title of our page is in H1 tag and subheadings in our page are given with H2 and H3 tags. Search Engine uses heading to determine what are all content in our page.

Interlinking: Internal links are links that go from one page on a domain to a different page on the same domain. These type of links are useful for four reasons:

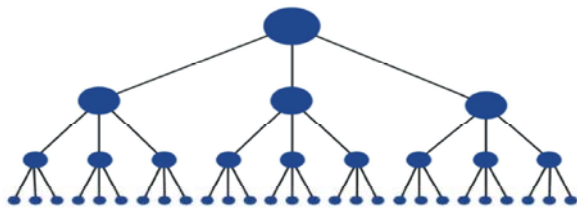
Providing Relevant Data to Readers: With internal linking one can tell the user that there are other posts/information on the site that is related to the text they are reading or has some additional information.

Proper Navigation: Internal links on a page helps user to access relevant content available on other pages by navigating.

Helps to Decrease the Bounce Rates: when a reader reads an article in our site and find a link that relates to a similar post or post that takes the reading/discussion further and reader can longer on our site. This may turn in lower bounce rate.

Pass the Higher Rank to Other Pages: When one page of our site has a higher page rank or authority we can place a link (in the high ranking page) to a relevant post on our site that has low rank. This will pass the traffic (number of visitors) to the linked page(low rank page) and that page will start performing better in ranking.

Internal Link Building: It is one of the on-page optimization techniques to increase the rank factor of the site thus the site results in the top of SERP. On-page optimization refers to factors that have an effect on the web site or web page listing in natural search results. These factors are controlled by the developer or by coding on the page. Inter linking means to link the article to the existing article which are relevant which boosts the chances of getting higher rank. In other words internal links are links that go from one page on a domain to different page on the same domain. The internal linking is done based on Keyword such that we can link to relevant information. They are commonly used in main navigation. As much as internal links in our site more the visitor's to our website and thus increasing the rank to make the site at the top of SERP.



Uses Of Internal Links:

- Users to navigate a website.
- Helps to establish information hierarchy for the given website.
- Spread link juice (ranking factor) around websites.

We can create internal links by using “Anchor text” that links to the specified URL.

- Help to decrease bounce rate that is the measure whether the user viewed only one page or more than one.

<a href = <http://www.data-structure.org>>TCP in this TCP is the anchor text by this we can link to the site. It is done during On-page optimization.

Write engaging, relevant SEO enhanced content:

- We are aiming for a page that captivates and holds the reader's attention. The home page aim to become a popular resource in its niche. The page should not contain full of advertising content. While linking to other page we have to give the visitors the opportunity to stay on the SEO home page.

Publish and promote your home page:

- Make the site visible to Google to index by posting it. In order to increase the rank share the website on social networks and make it alive encourage reader engagement and frequently analyze and refine the home page's SEO.

The beauty of interlinking is to use anchor text. Anchor text is the visible, clickable text in the hyperlink. The words contained in the anchor text can determine the ranking that the page will receive by search engines.

External Link Building: The site can also have some external links to the website that are relevant to the site which also helps in increasing the traffic. External links are hyperlinks that point at any domain other than the domain the link exists on. This is a link to another website. One can choose the older and popular websites like Wikipedia, as older websites are frequently ranked and is easier to make our website to get more visitors. While doing external linking we have to consider

- Aim for high PR(Page Rank) sites
- Consider valuable word associates.
- Find sites relevant to your niche.
- Create links that can be shared.

Off-Page Optimization: *Off page SEO* refers to techniques that can be used to improve the position of a web site in the search engine results page (SERPs). Unlike On- page SEO, off-page SEO refers to activities outside the boundaries of the webpage.

The most important are:

- Link Building
- Social Media
- Social bookmarking



Importance of Off Page SEO: Off page SEO gives them a very good indication on how the World (other websites and users) perceive the particular website. A web site that is useful is more likely to have references (links) from other websites. Share the site on social media (Facebook likes, tweets, Pins, +1's etc.) and it is also bookmarked and shared among communities of like-minded users.

Link Building: Link building is done in off-page by using backlink. Backlink is the link from other relevant site to our site. Through backlink we can get visitors to our site and thus it will help in attaining higher ranking in SERP.

Social Media: Social media is part of 'off-site SEO' and it's also a form of link building. It should be noted that almost all of the links you get from social media sites are "nofollow" but this does not mean that they do not have any value [5].

One need to sign up to the most popular social networking sites, such as Facebook, LinkedIn, Twitter, Google+, etc. and create a profile. This allows to extend the online network of contacts, to connect and interact with friends, to share things with each other and most importantly promote the website/blog and help build the online reputation. In each social media, when one is creating a profile of their own there will be a field called "adding your website or a link or a url" within which you need to specify the domain name and save account by clicking save changes. The importance of sharing the content in social media is that one can able to get high ranking and canabletoget many backlinks for the site.

By using these all factor one could able to make the site or pages to appear in the top most search results.

Example: Let us take google+ in which we see how to share content with your friends. Just click "what's new" on the top of the page, one will find different type of options such to share a image or video or link. But here we need to share our domain so we need to click link button and press share button.

Social Bookmarking: Normally bookmarking is the term which is used to refer that, google can remember about the particular site. Social bookmarking is not as popular, it is used to be in the past but it is still a good way to get traffic to the website. Social Bookmarking is another great way of promoting your website. Submit your latest blog posts and pages to the most popular bookmarking sites, like StumbleUpon, Digg, Delicious, Reddit, etc. which are top most sites for social book marking. Search engines really like these types of sites because the content on these sites is updated very frequently. We need to create a profile and can add website (most of them will be of dofollow) by using this we can able to add our site to the social media.

Social Networking: A major off-page technique is to have strong and active social networking. Social Networking is the best place to promote our article. Through promoting our article we may get higher traffic to our site. Create a profile in various social networks and share/promote about our site/page.

Forum Submission: Participate in forum related to our site and make connection with outside world. Reply to threads, answer people's questions and give suggestions and answer. Make use of Do-Follow Forums.

Video Sharing: Make videos for relevant post in our site and share it in various video sharing sites. There is a great chance for people to view our site if we provide excellent information in video; this in turn will bring traffic to our site because through video we are representing our site [6].

Slide/Presentation Sharing: Slide sharing is another good off page SEO technique, there are many presentation sharing site with good ranking/search query, where we can use our link building strategy to get traffic to our site. Create Presentation and submit it in popular slide sharing sites to get more popularity.

Guest Posting: Guest posting on big relevant site is the best way to build high quality backlinks to our site, because popular site have lot of visitors so there are greater chance/ probability of those user to visit our site and eventually increases traffic.

Private Blog Networks: If we have more than one site under same category then we can interlink from good quality site to other site. If we could able to link from homepage then it is a most powerful link.

Directory Submission: Directory is a database that list the website based on category and subcategory. The most important step in directory submission is to choose the correct category in which we are going to submit our site because if category is not right then there is very less chance of approval. Through this we shall get traffic and it might boost our index.

Directory submission is of three types

- Regular
- Featured
- Regular with Reciprocal

Regular submission is of free of cost directory submission. Featured submission is a paid one. Don't submit directory under reciprocal because there will be regular exchange of links between two sites only exists.

Advantage of Directory Submission

Get Quality and Safe Backlinks: Through directory submission we may get potential source of building SEO friendly backlinks. Some directories also provide dofollow backlinks which help us in promoting and indexing [7].

Getting Massive Exposure: We may have our own set of audience from a particular demographic region. Directories submission displays our site for every related search query on their database. That means more chances of getting noticed by audiences and greater possibility to get more traffic to our site which in turn increases the ranking of our site.

Webmaster Tool: This tool is used to add our site to search engine and manage statistical information about our site by giving either full or restricted permission. If the users have full permission they can edit and see the site and if they have restricted permission they only can see the site.

Statistics of the site includes,

- Search appearance
- Search traffic
- Google indexing
- Google crawling

Other Search Engine Ranking Factor

Domain Authority: Domain Authority is a score (on a 100-point scale) developed by Moz that predicts how well a website will rank on search engines. This is based on strength of entire domain, quality and authority backlink. By improving our domain authority, we increasing our chances of improving our search engine ranking. If we are working on link building of our site then we should try to get link from websites having higher domain authority.

Page Authority: Page Authority is a score (on a 100-point scale) developed by Moz that predicts how well a specific page will rank on search engines. It is based on page content, image, page loading speed, videos and structured pages (home page should contain some niche / micro niche).

Google Page Rank: It was the Google Algorithm to rank website. Every page on the site is given a rank by Google. Every page can get a rank between 0-10. It can be improved by many ways like writing more content, more SEO friendly page, link to/ from relevant site. Avoid Duplicate Content Issues to rank better.

Example: If we have two article with title as:

- How to install windows 8
- How to install windows 8.1

For Search Engine both the article were same rather remove one post from our site and update the content of removed post to the post which has good position and page rank.

Bounce Rate: Bounce Rate is percentage of visitor to a particular website who navigate away from the site after viewing only one page (i. e Visitor leaves the page quickly). It should be low to get ranked in higher position. Page speed [8] plays important role in bounce rate. If Page loading time is high and content is not useful then bounce rate of that site/ page is high.

Following are some of the main reason people leave our website from the landing page without browsing any further:

- Poor webpage design
- Poor Navigation
- Not using a responsive layout. So landing pages become hard to read on devices with different screen resolutions.
- Too many ads in the page.
- Too much text
- Poor formatting
- No spacing between lines and paragraphs.
- Lack of headings and sub-headings.
- Landing pages which take time to download. If this is the case then expect 100% bounce rate all the time.
- Audio/video contents which auto play as soon as the page loads. This is very annoying for visitors.

REFERENCES

1. George S. Spais 2010. "Search Engine Optimization(SEO) as a dynamic online promotion technique: the implication of activity theory for promotion managers" Innovative Marketting.
2. Abdul Wali Khan Online Courses at "www.onlinetuting.com" about the basics of On Page, OffPage Optimization and Google Algorithm.
3. Khalil ur Rehman and Muhammad Naeem Ahed Khan, 2013. "the Foremost Guidelines for Achieving Higher Ranking in Search Results through Search Engine Optimization" International journal of Advanced Science and technology, March, 2013.
4. Gokhan Egri, Coskum Bayrak, 2014. "The role of Search Engine Optimization on Keeping the User on the Site" Conference Organied by Missouri University of Science and Technology 2014-Philadelphia.
5. Logesh Kumar, R., Founder of Infozub and Senior SEO Analyst of Clickdo "http://www.infozub.com/services/seo".
6. Krishna, Choudhari and Vinod K. Bhalla, "Video Search Engine Optimization Using Keyword and Feature Analysis" International Symposium Computer Vision and the Internet(VisionNet'15).
7. Online References on Guidelines of Link Building and SEO Concept in "http://www.quicksprout.com/university/category/seo".
8. Ashika, S., M. Karunya Devi and E. Preethi, 2015. "Optimizing the Website Visibility using SEO schema markup and page speed optimization" March 2015.