



## A Study of Search Engine Optimizations (SEOs)

Tanjot Kaur Kakkar<sup>1\*</sup>, Nripesh Kumar Nrip<sup>2</sup>, Amarjeet Deshmukh<sup>3</sup>

<sup>1</sup>Department of Management Studies, Bharati Vidyapeeth Institute of Management Education, New Delhi, India.

<sup>2</sup>Department of Computer Applications, Bharati Vidyapeeth Institute of Management Education, New Delhi, India.

<sup>3</sup> Center for Distance & Online & Research, Bharati Vidyapeeth Institute of Management Education, New Delhi, India.

\*Corresponding author

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### Abstract

Search Engine Optimization (SEO) can be defined as the process of affecting the website visibility in the world of evergreen search engines's unpaid results. It can also be defined as a process including various techniques that is being used to enhance more traffic on the website from the "free" and "organic" search results that are being available on the search engines.

SEO's is an effort that is made to make your website be in the top search results of a search engine because mostly the user searches out with the keyword of their desired need, rather than searching for the organisation name, and if the page link comes up in the top position then the page comes out to be profitable. SEO is a strategic technique to take a web document in the top search result of a search Engine.

In today's era as we all are aware of the fact that the internet marketing strategy, this research considers how a search engine works, what people search for, or actual terms/ keywords typed in the Search Bar, and how these are analyzed and optimised. This whole work describes the effort of taking the page on the top position in any search engine, say "Google" by increasing the page rank which may result in an improved position in the gang of competitors.

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Amongst the various search engines available in the market the Google Chrome is found to be the most user-friendly search engine proved for the Indian Users as it provides which gives user-oriented results. In this research paper, we analyzed the impact of search engine optimization techniques that can improve the visibility of a Website.

**Keywords:** Introduction, Literature Review, White Hat SEO, Black Hat SEO, SEO Methodology, On-Page SEO, Off-Page SEO, Future Scope, Conclusion.

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## 1. Introduction

Let's take a quick example to know what SEO (Search Engine Optimization) is? If you have a YouTube channel and not getting views or you build a website and in that website no traffic is being generated, how can SEO help you increase enough good traffic/ visitors? (1) In a competitive world, every user carrying their product or service selling them online wants their item to sell rapidly and reach the customer quickly in the behaviour of time and trend, for the purpose user or service provider uses search engine optimization.

Whenever a user searches in the search bar, he/she only prefers the result available on the first or second link and 4-5% of users go on further pages (including researchers). We all know that millions of web pages are indexed per day in a search engine.

SEO is the most powerful way to reach the customer as this technique helps to connect them when they are in need. SEO is used because a website will attract more visitors when it comes up to the top when they are searched in search engines. SEO considers how a search engine works, how customers get what they type simply using a phrase and keyword into the search engines. (2)

Suppose, you created a YouTube channel or developed a website and you uploaded a video on your YouTube channel or posted some content or a blog on your site. So how you will spread it over the world (world means the whole internet) and one will come to serve your YouTube channel or visit the website.

### 1.1. Particularly, a beginner can try one of the three methods

**a) Social Media Post/ Spamming:-** Personally messaging everyone known either on Facebook, WhatsApp or Instagram to visit the channel or website. In this way, you can get 100-200 or max 500 visitors and not more than the given figures.

**b) Advertisements via SEM (Search Engine Marketing):-** SEO is a part of the topic of Search Engine Marketing (SEM), a term used to describe all marketing strategies for search. SEM is mainly divided into two broad categories, i.e., paid and organic search. Users who are carrying wealthy websites, opt paid search as they make their website show up first, when a searcher types in a specific phrase or keyword.

These types of paid search schemes insist the searcher to believe that companies found on the top results are the best in class brand in terms of product or service a searcher is looking for. The major problem is that you need to invest a lot of money on which small scale individuals or startups cannot work.

**c) Organic Search:-** Through Organic Search, you can get millions of hits on your site or channel. Suppose, you need to search something on the Internet, what will you do? You'll simply search it on Google or any other Search Engine by typing your keyword in the search

bar. Suppose, you typed shoes on a Search Engine, and there comes the responsibility of Search Engine to view all the websites listed on the keyword 'shoes'. How a Search Engine maintains this list for which SEO is being used to optimise the Search Engine so that the website we build can show up on the top results in order to grab a huge customer base whenever one searches for a particular keyword such as 'shoes'.(3)

A top website ranked on #1 in any Search Engine for which Search Engine uses its algorithms to rank any website on a particular keyword. Crores of websites are built on the Internet and compete. The website ranked on #1 doesn't remain on #1 lifetime.

Competition arises and everyone tries to rank their own website on the top listings and degrade other people's site rank. All the work is controlled by the Search Engine and its algorithms. These algorithms are secret because if anybody got to know these algorithms then anyone can rank a bad or malicious website on the top listings.

A website's optimization on a search engine depends upon a lot of conditions that keep changing automatically to prevent manipulations of their systems.

## **1.2. Everything runs on automation. SEO is divided into two parts which are**

i) White Hat SEO:- In this, we do nothing for ranking. We let the things on Google or any other search engine and now, it's the responsibility of Google to rank our website. The search engine goes through each website site map and analyses each website and ranks upon its quality and content.

ii) Black Hat SEO:- In this, we force google, it's coding, and algorithms to rank our website at a particular keyword. To rank fast, it depends upon many factors and conditions for the SEO on Google. Talking a little about these factors are :

Your domain/website name should be matching to the keyword.

Title, Description and Tags

Backlinks/ Sourcing

SEO is also not a one time learning that once you learned "B comes after A". SEOs or we say its algorithms keep changing with time. Once an algorithm written by a Search Engine is not going to work our whole life.

## 2. Literature Review

Various researchers have explained the SEO and its importance in order to maintain a good position in the site's competition. Search engine marketing is the fastest developing promotion medium in the world of search engines. Search engines are the essential search tools utilised for data recovery on the Web. It has been assessed that most Web clients utilise search engines to acquire data from the Web. This highlights the fundamental significance of website pages being recorded with web search tools. An essential system for any site proprietor is arranging how guests can discover their specific website. The search engine acts as a mediator amongst shoppers and sites. It will likely furnish shoppers with links to the most noteworthy quality sites on the organic side. To rank sites, the web search tool scores every site on its assessed quality utilising data assembled from the Internet utilising crawling calculations and information mining strategies. The users while utilising a search engine are affected by the search engine marketing decisions made by site proprietors and by the mechanism of the search engine. Site proprietors can decide to put resources into SEO push

to advance their site in organic postings and also offer for sponsored connections. SEO matters in light of the fact that without it, a better site or a quality webpage will show up lower in the search results.

Marketers use SEO to build the position of their postings in the organic indexed search results which are created by the search engine's restrictive ranking calculations. The positioning depicts the importance of the match between the searchers' search inquiry and the sites in the web crawler's file. With SEO, marketers attempt to improve their websites so they are seen as more significant by the rank in order to gain better market share. SEO is favourable for marketers because they do not have to spend on web traffic from organic ads. Another significant aspect of SEO is the continuous and real-time insights about the online behaviour of the consumer. Thus, SEO needs to be performed on an ongoing basis. Comparing SEO with the traditional methods of marketing, the analysis of results and prediction of consumer behaviour usually take months to Manifest.

On the contrary, SEO provides real-time analysis of consumer online behaviour. SEO offers the market a more knowledgeable medium to emerge for required search queries at high ranks on the search engines. The cost of a webpage facilitating services is diminishing; this approach would undoubtedly turn online marketing to be less expensive. In such a situation, there would be an expanding number of on-line vendors providing SEO services. All the leading search engines constructed a logical model that makes it conceivable for the marketers to compare search engine marketing strategies in terms of their impact on the profitability of online marketers. Online purchasers utilise search engines to scan for price information. In the process of finishing the search process, the purchaser structures a thought set that comprises the dealers whose websites were visited during the search. Site URLs in

print ads, marketers, draw the attention of the target audience to their Web destinations. Search engines have turned into a starting point for information searches and a navigational aid to finding pages on the Internet. SEO is for the most part considered to either be a substitute for or a supplement to traditional media. Search engines rank search query results based on a wide range of algorithmic and quality factors. Anyone can get you more traffic, however, would be able to get you traffic focused to your business keywords that creates quality changing over leads. At the point when done appropriately by experts, SEO can get an enormous advantage of site improvement is round the clock marketing. A very much enhanced site will rank throughout the day consistently. Marketers can reduce server stress and load times, which lead to speedier pages, happier search engine spiders, and retained visitors by validating code and optimising files. The most favourable position of SEO administrations is sales! The website is effortlessly accessible to a huge part of the online clients. A superior streamlined and outlined site magnetises a lot of searchers. The act of SEO can altogether build a better website ranking, driving more traffic movement to the site, and subsequently expanding revenue. SEO is an essential apparatus to expand a webpage's visibility for marketers who can bear to pay more. The larger part of online sponsors put resources into both SEO also, sponsored search engine marketing and faces a vital problem in the matter of how to dispense their financial plan between the two exercises. SEO will be around as long as search engines are around and search engines will be around as long as individuals search for data.

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### 3. Methodology

In order to find how actually SEO works or how the idea of building an SEO came to a successful finish. We hereby want to highlight SEO methodologies in the world of Google Search.

Now, the website we created or built is of no use until and unless no one comes to serve it. How to bring traffic from Google to your website. Before doing SEO of any site, the first step comes is to recognize the keywords. These keywords are those text which a user searches on Google Search Bar. You need to rank your site on some of the particular keyword and the ways to search for keywords are:-

The simplest way to find keywords is Google. Anything you type in its Search Bar, it auto-completes and gives suggestions. Even in the footer section of the result page, we see a list of keyword suggestions on which a lot of traffic could be serving towards these keywords. Firstly, you need to find a main keyword to rank your site and then the before and after keywords from the main keyword because you need to spread your site everywhere. In Particular, you're not going to target one keyword. You can get a lot of keywords by autocomplete whenever you click a suggestion, keyword suggestions also keep changing. Whatever you type in the Search Bar, it presents you with some suggestions which can be considered as sub-keywords.

The second way to extract keywords is to go to keywordshitter.com and type in a keyword and extract a lot of keywords from the main keyword. As this process goes in a loop, you can extract a limitless number of keywords and once you stop the process, you can copy and save all the keywords and can try to rank your site on these keywords. Now, we have a list of



keywords but now, we need to find how many searches are done on a particular keyword upon which we can compete to find the valuable or beneficiary keyword. The ways to do-:

There is an add-on called “KeywordsEverywhere” extension which needs to be installed on the browser either on Chrome or Firefox and then it automatically specifies how many searches are done on a particular keyword.

It's not perfectly accurate but 60-70% accurate. It's acceptable if you are getting service free instead of nothing.

### 3.1. On-Page SEO

Now, comes the content. Your homepage or other pages, what you are writing on them depends a lot from the point of view of SEO. The article you are writing, its title, its URL plays a major role for every page you want to get ranked. For Example: amazon.com/12345 is not a user-friendly URL whereas amazon.com/shoes is.

All these things come under ON-Page SEO. On-page SEO is the practice of optimising individual web pages in order to rank higher and earn more relevant traffic in search engines. On-page refers to both the content and HTML source code of a page that can be optimised.

Things to do for On-Page SEO-:

a) Title, Description, and Keywords -: These things come in the coding section or can be referred to as HTML tags. You need to maintain title in the title tag, and description about your site in the meta tag, and keywords also which gets interpreted by the Search Engine Bots which needs to be compiled on every page of your site. Title and Description are interpreted for humans and keywords for search engine bots/algorithms.

These tags need to be different for every page so that the Search Engine can recognize every page differently. This is the basic thing that Search Engine understands and displays on their Searched Pages such as your Title and Description.

Bonus: There are a lot of online sites you can find on Google (“HTML Checker”) from where you can validate and check your HTML page coding and what errors are compiling. These errors can also be interpreted by Search Engine Bots which means more errors equals the low rank of the site.

b) Secure Network(https) -: You need to work on your whole website and do things differently or unique of your own which will compete in the online market and could get a better rank than other sites. But that’s not enough. If your site is not secure or, say, your site does not have an “https”, it will definitely get a lower rank than other sites who provide secure connection sites.

To secure your site, you can either pay to buy a Secure Socket Layer(SSL) certificate from SSL certificate providers such as GoDaddy, or you can get a single site secure by registering it on a website called ‘Cloudflare’ which secure the traffic flow for free but only for a single site.

c) Speed Analyze -: You need to analyse from where traffic flows to your site. For example, if your site is hosted on a U.S server and U.S traffic comes on your site, then your site can respond fast but if the India traffic is coming to serve your site, then your site can have a minor/less speed. Far the server from the traffic, less the speed is observed.

d) Heavy Files -: If your site pages contain unnecessary codes or heavy files such as lots of high-quality images or videos, then a site can take a long time to load to the client-side. Optimization of pages is very crucial to maintain the site speed which means you need to minimise the load time of your site. Sometimes, it also depends upon the server for the load time of a site. Checking a server load time before uploading your website files can be easily done by referring to “Page Speed” checking sites, one of them also offered by Google is “Page Speed Insights”.

e) Error Pages -: There could be a lot of pages or links which either could be deleted, modified, or not found. You need to close all these links first and remove them from Google so that if Google Bots analyse your site, it doesn't find any crack/corrupt links on your site and doesn't lower your site ranking. Removing error pages and broken links means a more trustworthy site.

f) Bounce Back Rate -: Lastly, the big factor related to any site ranking is Back Rate. This means if any user serves on Google and your site comes up on top search results and a user clicks on your site link & doesn't even stay for 5-10 seconds and goes back to the Google result page triggers Google algorithms to think/assuming that many users are coming up on the site but are bounce backing which means even after opening a site, a user doesn't stay or serve the site for long. This leads Google to assume that the site contains a lot of trash content and people don't even want to see or read the site content either because the site's taking too much time to load or contains trash content by which Google downgrades your ranking. You need to take care of the Bounce Back rate so that when a first visitor comes, he/she sees content on the top of the site which leads to the user thinking that the site is competent and must scroll & serve for some time. If you add useless things or a lot

of advertisements on your site, nobody will scroll and shall get back from your site, and even if you're displaying a lot of popups on the opening of your site which is an irritating kind of thing for the user. This will lead to more bounce back rate and more downgrade of your site ranking. The basic solution is to decrease the bounce-back rate by avoiding the above mistakes.

g) Click-through rate (CTR) -: This means if a 1000 users are able to see your site link, then how many are clicking and opening your site. This depends upon your title, description, URL, etc. What catchy things you are adding up in your title and description that brings users to your site. It leads Google to think that a lot of people are serving the same site on a particular keyword even if its ranking is on #9. Google thinks that the site has the competence and people are skipping all the top listings and directly coming to the #9 ranked websites.

This was all about on-page SEO or basically, what needs to be done on a website through which Google treats our site as a good site and upgrades our ranking. These are all the techniques that people need to follow and even people follow It.

### **3.2 Off-Page SEO**

The main thing related to the SEO point of view is Off-Page SEO. It refers to actions taken outside of your own website to impact your rankings within search engine results.

Different ways to implement OFF-Page SEO -:

a) Link Building -: Suppose, I have an old website ranked on a different keyword, and you just created a new website. You came up to me and I referred your website in my footer or

any other section of my website or say, I put up a link of your site on my website. Google considers my site an authorised site and I referred to your site means Google's also going to consider your site an authorised one too. Google considers it as Backlink. Simply, backlink means from one site to another site creating a link. If you want to rank high in SEO, you need to create more backlinks. You need to get different backlinks from various different sites so that when Google Crawler or its algorithms scans different sitemaps also come across your site by referrals from other sites or back linking. It creates more authority for your site because the other good sites are referring to your site. The authority of other websites referring to your site acts as a juice to your website's authority.

Why would anyone refer to your site? You can either do a free content writing for someone and ask them to provide a backlink to your site (Contributing as Guest Author) or asking our friends to provide us a backlink or reach out to any influencer. This is what top game players of top-ranked sites are doing.

Tricks to know the competitor's strategies of creating backlinks and using them to gain backlinks for ourselves:-

i) Ahrefs -: The top most expensive website used to know anyone's site information such as sources of backlinks, different keywords on which site is ranked, etc. This tool is widely used by top digital marketers to know their competitor's strategy and can use the same strategy to rank their own websites. This tool usually costs from around Rs.6k – Rs.60k.

ii) SEMrush -: The second tool in the blogging industry. It shows almost the same information as the previous tools such as paid search(via advertisements), sources of traffic, organic keywords(site ranked upon), number of searches, etc. It's nearly impossible for

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humans to find source traffic manually as it can be easily found via understanding and researching different strategies implemented by existing websites.

iii) Keywordtool.io -: It's also a paid tool but also very accurate except like the free version such as "keyword everywhere". It shows information such as how many searches had been done on Google or any other search engine such as YouTube. It provides accurate information as this tool uses Google APIs at the backend.

This is how you can use various tools to find various backlinks of any site. Also remember that creating a lot of backlinks notify Google of suspicious activity of Spamming or implementing Black Hat SEO which can penalise your site as well.

If possible, get backlinks from trusted and authorised sources only instead of going into a rat race of backlink numbers/figures. More number of backlinks doesn't assure a top-ranked site because Google even knows that people do stuff like Black Hat SEO like getting many backlinks from the same site or creating a 1000 backlinks in just one day(spamming) which will penalise your site and chances of removal of your site from Google also arise. This can also happen if the site from which you have got a backlink gets penalised and then sites referred from the panelized site also start getting panelized. In this case, your site can also get blocked or excluded.

b) Link Building (via WEB 2.0) -: Web 2.0 refers to websites that emphasise user-generated content, ease of use, participatory culture, and interoperability for end users. Creating various backlinks of the main site in different sites of Web 2.0. Web 2.0 links are powerful ways to help control the conversation of content that's directed to a website. These types of backlinks

are from highly authoritative domains and, when done correctly, can carry some serious ranking power.

The industry's implementing different new ways and doesn't take backlinks directly but in a level of hierarchy as shown :

A lot of backlinks are directed towards the main site via tier 1, tier 2, and tier 3. Most of the free websites are created at tier levels 1, 2 and 3 and are only created to direct traffic towards the main site. A lot of sites get eliminated at tier 2 and tier 3 level due to a lot of backlink spamming. Even if the sites at tier 2 and tier 3 gets eliminated, the risk factor of elimination of tier 1 sites and the main site gets negligible by Google because all the spamming has been done at lower levels of the architecture. The authority of sites at tier 1 level gets very high because all the traffic gets directed from the lower levels and when the site at tier 1 level refers/ provides a backlink to the main site, the authority level and ranking of the main site gets very high. The number of backlinks gets multiplied when the backlinks are created in a hierarchy level.

c) Private Blog Network (PBN) -: It is a network of existing authoritative websites used to build links to the main website for the purpose of ranking higher in Google or other Search Engines. The quality of sources of backlinks matters a lot instead of the quantity of backlinks. Creating a number of authoritative websites on the web with different domains on different servers and backlinking the client's website to any of these websites can bring a lot of traffic to the client's websites. Using this network, a lot of big digital companies make a lot of money by ranking their client's site on the Search Engine. These companies create and regularly maintain nearly 1000 websites by investing a lot of money on data servers and

domains. It is important to run authoritative websites of a private blog network on different servers at different locations otherwise, suspicious activity of link spamming can be easily recognized by the Search Engine algorithms as if all the sites are uploaded on the same server or same location. You can also create your own Private Blog Network, grab clients and earn money.

All the techniques or methods discussed above can rank your site or not, all depending upon Search Engine algorithms. Search Engine and its artificial intelligence can detect various spamming. All you can do is experiment with different methods to rank your site and get results from it. This is how you can know how things work and can understand a little bit of Google Optimization Algorithms. There is no one in the world that can fully understand its Algorithms.

All the sites are mostly dependent upon Google because Google is the only one who brings a lot of traffic to other sites.

Bonus: You can also purchase expired domains. Expired domains are those domains whose authority was high, having a lot of traffic potential and also a number of quality backlinks but got expired as sometimes site owners forgot to renew their site. A blogger or some companies will find such expired domains and can purchase such domains in order to save time and effort for SEO and get an already ranked site domain.



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#### **4. Future Scope**

Everyone gets into work with the aim of viewing that thing in the near future that means how futuristic it will be. In the same way, more and more SEO algorithms will get developed in the near future for survival in the competitors. It will enhance a number of skills and provide a great scope for the websites to be more viewed in the near future.

Not only this, but SEO scheme will also enhance the approach more towards the digital marketing and will definitely going to increase the demand of webmasters and will boost up their employment along with great opportunities as well as with great salary packages, the SEO technique has great scope in the near future as you cannot automate SEO as Google is always changing the rules when it comes to rankings.

Although the technique of SEO isn't that new, its utility in the present times will increase a lot with the emergence and widespread acceptance of ecommerce. So, SEO definitely has a sustainable future. Not everyone knows about it, which is a sign that it is still a relatively new field to get into.

#### **5. Conclusion**

After having research on SEO, we came up with some conclusions in the light of overall observation:

- a) SEO is the way that your website will perform on the Internet and gain web traffic to your website via free, organic, and natural search results.
- b) The search engine is getting more and more advanced in determining how and what webmasters are doing to get the ranking.

- c) This SEO scheme has insisted on implementing ways to increase the probability of finding a good listing, which comes under the umbrella team of Digital Marketing.
- d) The search engine optimization is very effective to increase huge earnings on returns on investment when compared to all other marketing forms. This will improve the sales and profits of the company.
- e) Continue to keep in mind what other researchers are searching for online, make your keywords relevant and accurate, shout about your research, and make it easy for others to find and read your work.

From the above, it can be concluded that the benefits of the new innovations on the traditional search engine for the business purpose is to increase the traffic, reduce duplication, augment the speed of searching, scalability, and improve Efficiency.

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