

## Public Awareness and Attitudes towards Search Engine Optimization

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### Abstract

In the field of Search Engine Optimization (SEO), certain optimization strategies have remained constant and form the basis for SEO. However, the internet and web design are rapidly changing, and new optimization strategies are emerging while others are becoming obsolete. Due to the vast amount of content on the internet, finding relevant information is challenging, and information retrieval techniques are critical for SEO. This study's objective is to identify the essential factors that enhance search result positioning and investigate public attitudes towards Search Engine Optimization (SEO) and Paid Search Marketing (PSM). Using a quantitative research design, the study gathered data from 72 respondents to address the primary research questions. The results reveal that the general public has a limited understanding of SEO and PSM, and their attitudes towards SEO are below average. Therefore, the study recommends raising awareness about SEO and PSM among the general public to enhance their understanding and use of these tools for personal and organizational purposes.

**Key words:** Search engine optimization, paid search marketing, attitude, awareness

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### INTRODUCTION

According to Zilincan (2015), SEO, or Search Engine Optimization, is a crucial component of inbound marketing, which centers around being discovered by potential customers, as opposed to traditional outbound marketing, where companies seek out new clients themselves. Outbound marketing tactics, such as cold calling, print advertising, TV advertising, direct mail, junk mail, or trade shows, are often interruptive and not easily

targeted. However, research has shown that these methods have low success rates, with 86% of people skipping TV ads and 44% of direct mail being left unopened (Akaishi, 2022).

The issue of search engine bias, where certain search results are unfairly favored over others, has been discussed in various studies (Gezici, Lipani, Saygin, & Yilmaz, 2021), but there is a lack of extensive empirical research on this topic. Understanding how search engines may favor certain results is crucial as it impacts what users see on search engine result pages (SERPs), what they visually pay attention to, and the results they are more likely to select (Lewandowski & Kammerer, 2020; Strzelecki, 2020). The primary goal of search engines is to provide relevant results, based on the basic principle of information retrieval (Büttcher & Clarke, 2010; Levene, 2011; Manning et al., 2008), known as system-side relevance. It is also important to consider the commercial interests that may influence search engine results (Schultheiß & Lewandowski, 2021b). Advertising that incorporates keywords demonstrates a market need. Contextual adverts, usually referred to as "sponsored results," are frequently shown above the list of what are known as "organic results" in response to user inquiries (Jansen, 2011). These advertisements should be regarded as a type of search result since they are produced in response to user queries (Lewandowski et al., 2018). Consequently, using a search engine to find information becomes a necessity for everyone. Search engines are what we rely on to give us the right information at the right time. Search engines must locate and display the most pertinent information matching a user query after filtering it to satisfy users' needs. The problem is that the people around the region was not aware of SEO that is search engine, when they have to search anything they have to check in Instagram and Facebook that cannot be the right way to search anything because the mis information can take place. The Google does an unfair work that the person who pays for advertising gets more end users whether it is useful or not sometimes it is misinformation.

## LITERATURE REVIEW

### Search Engine Optimization:

According to Google's Search Engine Optimization Starting Guide (2010), Search engine optimization (SEO) refers to a set of adjustments and strategies aimed at facilitating search engines' scanning, indexing, and comprehension of website content. On-page SEO, which involves modifying the website's structure, and off-page SEO, which comprises techniques that are independent of the website's structure, are the two main categories of SEO. A combination of both on-page and off-page SEO techniques can result in a higher rank in the Search Engine Results Page (SERP) and a significant increase in website traffic. Recent research suggests that on-page factors such as page speed, structured data, and mobile responsiveness can significantly impact search engine rankings (Kim et al., 2020; Yan et al., 2021). Additionally, off-page SEO factors, such as link building and social media engagement, are found to be positively correlated with higher search engine rankings (Kusumawati et al., 2021; Yang et al., 2021). Before optimization, it is crucial to have a comprehensive understanding of the target audience, market, and available resources (Lindgreen et al., 2019). It is also necessary to select five to ten keywords that accurately reflect the content since optimizing every word on a page is impractical. Moreover, optimizing for user intent and natural language processing has become more critical than ever (Shen et al., 2021). On-page SEO elements, such as content, titles, domain names, URL structures, headings, internal links, Meta tags, page speed, structured data, and site maps, are directly controlled by the publisher. In contrast, off-page SEO factors, which are influenced by readers, visitors, and other publishers, are not under the publisher's direct control (Siddiqui, Hameed & Arif, 2021). Nonetheless,

these factors can have a positive impact on search engine rankings and increase website traffic. Off-page SEO components include personal settings, audio-visual material sharing, link building, blogs, forums, and discussion boards.

Search engine optimization (SEO) is a digital marketing technique that aims to increase website traffic and improve website visibility in search engine results pages (SERPs) through organic search. SEO involves optimizing website content and structure to increase its relevance and authority to search engine algorithms, which determine the order in which search results appear for a given query. Numerous studies have examined the impact of SEO on website traffic and user engagement. For example, a study by Chaffey et al. (2012) found that SEO had a significant positive impact on website traffic, with top-ranked search results receiving the majority of clicks. Similarly, a study by Huertas-Valdivia et al. (2018) found that websites with higher search engine rankings had lower bounce rates and longer user sessions, indicating greater user engagement.

Other studies have focused on the specific strategies and techniques used in SEO. For instance, a study by Kim et al. (2016) found that incorporating high-quality images and videos into website content improved website visibility and user engagement. Another study by Lee and Yoon (2018) found that incorporating social media into SEO strategies improved website traffic and user engagement. However, there are also potential negative effects of SEO, such as keyword stuffing, link schemes, and other black hat techniques that violate search engine guidelines and can result in penalties or even website bans. Therefore, it is important to employ ethical and effective SEO strategies to achieve long-term success. Search engine optimization (SEO) is a critical strategy for improving the visibility of websites on search engines, and it has been the subject of research in recent years. Jha and Gupta (2017) note that SEO is not without its challenges, but the prospects for improving website traffic and search engine ranking are promising. On-page SEO and off-page SEO are the two primary categories of SEO, and both require an understanding of the target audience, market, and available resources. Keywords are essential to on-page SEO, and it is crucial to choose them accurately as optimization is performed based on a user's search query. Publishers have direct control over on-page SEO components, such as contents, headings, internal links, and Meta tags, among others. Off-page SEO is impacted by visitors, readers, and other publishers, and it includes components like personal settings, link building, and content sharing. In social commerce, Kim and Kang (2019) found that SEO has a significant positive effect on brand awareness and purchase intention. Liu, Wang, and Jiang (2021) suggest that big data can be used to optimize search engine ranking algorithms, while Rahman and Hossain (2018) focus on SEO in e-commerce. Finally, Zhang and Jiang (2021) propose an evaluation method for measuring the effectiveness of SEO. These studies provide valuable insights into the challenges and prospects of SEO and suggest that it can be an effective strategy for improving website visibility, brand awareness, and ultimately, business success.

## **The Role of Search Engines**

Search engines play a critical role in helping users find information on the internet. They are essentially tools that allow users to search for and access relevant information based on their queries. The primary role of search engines is to index and organize web pages and other online content so that it can be easily searched and retrieved by users. They use algorithms to analyze the content of web pages and other online resources, categorize them, and assign

relevance scores based on factors such as keywords, links, and user engagement. Search engines also play a significant role in driving traffic to websites. By ranking web pages based on their relevance to a given query, search engines can direct users to relevant websites, which can increase traffic to those sites. In addition, search engines have become an essential tool for businesses and organizations looking to reach potential customers or stakeholders. Search engine optimization (SEO) techniques are used to improve a website's ranking in search results, increasing the visibility of the site and potentially driving more traffic and business.

A search engine is a software tool that uses keywords or phrases to search for information online. It works by continuously scanning the internet, indexing each page it comes across, and delivering results quickly to users (Purcell et al., 2012). To ensure their websites appear relevant to specific searches, businesses use search engine optimization (SEO) techniques (European Commission, 2016). Major search engines such as Google, Bing, and Yahoo are well-known for their speed and accuracy in delivering search results. However, research has shown that search engines like Google can display biased results, promoting hate speech, conspiracy theories, and showing bias in terms of race and gender (Ciampaglia et al., 2018; Gao & Shah, 2020; Noble, 2012, 2018; Ballatore, 2015). SEO is an essential part of introducing a company to potential clients through search engines. SEO specialists analyze and execute different website strategies to improve ranking for specific topics or keywords. When clients search for particular services through search engines, it is essential for a company to appear within the search engine results pages (SERPs) to enable them to find the company (European Commission, 2016).

### **Trust in Search Engines**

The level of trust users place in search engines varies depending on a variety of factors, including their personal experiences with the search engine, the perceived credibility of the sources it presents, and the level of transparency around its algorithms and ranking criteria. For many users, search engines are seen as a trustworthy source of information, particularly for common queries and general knowledge. However, for more complex or sensitive topics, users may be more cautious about relying solely on search engine results. In recent years, concerns have been raised about the potential biases and lack of transparency in search engine algorithms, particularly with respect to issues such as political polarization, disinformation, and privacy. As a result, some users may be more skeptical of search engine results and may take steps to verify the information they find through other sources.

Research suggests that consumers have a high level of trust in search engines such as Google and Yahoo. Purcell et al. (2012) found that 91% of US consumers frequently find what they are looking for on these search engines, and 66% believe that the results are accurate and unbiased. Similarly, a study by the European Commission (2016) revealed that 78% of European internet users consider the results of their searches to be the most relevant. According to Edelman (2019) and Newman et al. (2020), search engines are more trusted than traditional news outlets or social media when it comes to news. Being among the top search engine results can significantly impact website traffic, as demonstrated by a study of 2.5 billion Yahoo searches that found 10,000 websites receive almost 80% of all user hits (Goel et al., 2010). This illustrates how search engines can affect what consumers purchase and even voter turnout and political choices (Aral & Eckles, 2019; Epstein & Robertson, 2015). However, it is crucial to acknowledge that search engines have been found to display biased results. Gao and Shah (2020) discovered evidence of biased results based on race or

gender, while Kulshrestha et al. (2019) found evidence of hate speech and promotion of conspiracy theories. These findings emphasize the importance of transparency and accountability in the algorithms and results of search engines.

### Hypothesis Statement:

H1: There is awareness of SEO among general Public.

H2: There is awareness of PSM among general Public.

H3: There is a positive Public Attitude towards SEO.

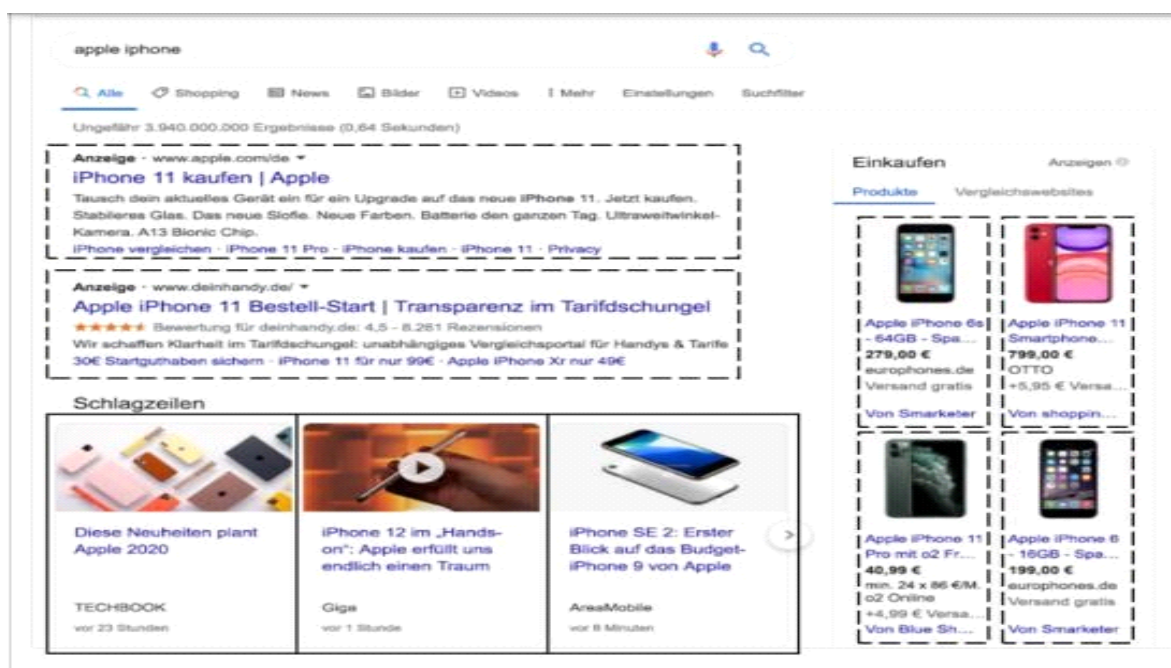
## METHODOLOGY

### Research Design

By using this flow chart, we would analyze the five main things; first one is public awareness of paid search marketing, the second is public awareness of SEO, third one is what's the public attitudes toward SEO, the fourth main critical part would identify the areas of influence of SEO and PSM, this section contain two Blocks and four elements of SERP. Block one has simple SERPs and the other block has complex SERPs. Last section will be based on demographic data. (Saunders et al., 2019)

### Sample Size and Technique

Samples took by convenience sampling method. Convenient sampling is the non-probability sampling where every division are selected for presence that is the easiest way of sampling, sampling will be done demographically, public will be divided into groups such as; age, gender, education, and the knowledge related to SEO as that researchers collect the data from these samples based on demographics. Data has been collected through online questionnaire. There were online links sent to the individuals and in groups of social media to be filled, the sample size was projected as N=72, but received 54. The questions contained both open end and close end questions (Bryman & Bell, 2015).



## **Questionnaire Design**

The questionnaire is designed to investigate how well the general public understands the way Google search results are generated and how website operators can influence their ranking on Google's search results page. The questionnaire consists of four sections with various questions.

The first section focuses on the revenue source for Google. Participants are asked to identify where Google generates most of its revenue from. If they answer correctly, they are asked to provide terms or phrases with similar meaning to ads.

The second part of the questionnaire centres around the paid search outcomes on Google. Respondents are inquired about whether companies or website operators can pay to have their results rank higher on Google's search page. If they respond affirmatively, they are then requested to specify if these paid search results are distinct from other search results and to provide the term used to describe techniques used to improve search result rankings on Google without making a payment.

Moving on to the third section, the emphasis is on search engine optimization (SEO) and how it impacts Google search outcomes. Survey participants are questioned about the impact of SEO on Google search rankings, the positive and negative effects of SEO, as well as the positive and negative effects of search engine optimization.

Lastly, the fourth section presents two distinct Google result pages and asks whether website operators can influence any search outcomes on these pages by paying Google, and whether any search results on these pages can be influenced by search engine optimization.

Throughout the questionnaire, participants are asked to mark requested results or skip the task if the requested result type is not available on the search engine results page.

## **Plan of Analysis**

This survey will be conducted in five different types of sections. The first will be testing the awareness of public towards paid advertisers of search marketing. The second will be testing the public awareness of search engine optimization (SEO). The third will be the behaviours or attitude of public of public towards SEO. The fourth shall be conducting of accuracy that how respondents can give search results a rating of how accurate the results are according to them. The fifth shall be collection of demographics data of public. The First section of the survey explains how much the public is aware about the paid search marketing. Paid search marketing is also known as digital paid marketing that is the strategy in which a brand targets potential customer. The second will be testing of public awareness of SEO this may tell how much the public understands the main concepts of SEO. Conducting of the attitudes will indicate how the public perceives the SEO, whether they are negative in user end or positive. The fourth variable tells that how much difference a customer knows between paid marketing and search engine optimization. The fifth variables generalize the demographics information related to the sample such as age etc. (Hair et al., 2020)

## DATA ANALYSIS

**Table 1: Awareness of SEO among general public**

| One-Sample Test  |                |    |                 |                 |                                           |       |
|------------------|----------------|----|-----------------|-----------------|-------------------------------------------|-------|
|                  | Test Value = 2 |    |                 |                 |                                           |       |
|                  | t              | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |       |
|                  |                |    |                 |                 | Lower                                     | Upper |
| AWARENESS OF SEO | -4.115         | 50 | .000            | -.451           | -.67                                      | -.23  |

**Table 2: Awareness of PSM among general public**

| One-Sample Test  |                |    |                 |                 |                                           |        |
|------------------|----------------|----|-----------------|-----------------|-------------------------------------------|--------|
|                  | Test Value = 2 |    |                 |                 |                                           |        |
|                  | t              | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |        |
|                  |                |    |                 |                 | Lower                                     | Upper  |
| AWARENESS OF PSM | -5.870         | 50 | .000            | -.51961         | -.6974                                    | -.3418 |

**Table 3: Attitude of general public towards SEO**

| One-Sample Test      |                |    |                 |                 |                                           |        |
|----------------------|----------------|----|-----------------|-----------------|-------------------------------------------|--------|
|                      | Test Value = 3 |    |                 |                 |                                           |        |
|                      | T              | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |        |
|                      |                |    |                 |                 | Lower                                     | Upper  |
| ATTITUDE TOWARDS SEO | -7.709         | 50 | .000            | -.59477         | -.7497                                    | -.4398 |

There t- value is negative that shows, we reject the null hypothesis. And the mean difference is negative and less than the test value also means, we reject the null hypothesis. Lastly sig value is less than 0.05 that means we reject the null hypothesis

In the first table, the negative t-value and negative mean difference that is less than the test value showed that the audience of our questionnaire is not aware of paid search marketing.

In the second table, the negative t-value and negative mean difference that is less than the test value showed that the audience of our questionnaire is not aware of Search Engine Optimization.

In the third table, the negative t-value and negative mean difference that is less than the test value showed that the audience has no any kind of knowledge regarding Search Engine Optimization. The results shows that public did not have any idea, because the audience that responded was aged 16-25, they did have any awareness related to search. Mostly around 40% of the respondents were under graduates, and from this 40%, twenty percent did not have any idea.

## CONCLUSION

To analyse public awareness and attitudes toward SEO and PSM, a survey was conducted using convenience and quota sampling methods, and respondents were grouped by demographics such as age, gender, education, and preferred search engine. The survey focused on five key areas: public awareness of paid search marketing, public awareness of SEO, public attitudes toward SEO, areas of influence of SEO and PSM, and SERP elements. Search engines are a crucial tool for finding information, and users rely heavily on them to provide accurate and relevant results. However, research has shown that users may be influenced by search engine bias, which favors certain results over others.

The results of the survey revealed that the target audience, aged 16-25, had little to no awareness of search engines and SEO. The t-value was negative, indicating rejection of the null hypothesis, while the mean difference was also negative and less than the test value, further supporting rejection of the null hypothesis. Finally, the significance value was less than 0.05, which also led to rejection of the null hypothesis.

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