Website Information System Design With SEO Techniques (Search Engine Optimization)

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Abstract

The development of website technology is currently very fast, so it is very easy to get accurate information. Promotion through the website is also currently one of the things that digital marketers are interested in. A good website will have a good impact on the goods we produce. One of the good or bad of a website is determined by SEO (Search Engine Optimization) techniques. In this study, we use the website www. webkuliah.com to prove whether SEO techniques can have a good impact on search results on search engines such as Google, Yahoo, or bing. The results obtained prove that SEO is very good in making websites known by search engines. The results prove that by using the keyword web university on the Bing search engine, the website can occupy the first page of Bing, it's just that it doesn't rank number 1 because it can't compete with the campus domain, which happens to be the name of the website used similar to the name of the campus. But the drawback of this SEO technique is that it takes a long time to occupy the first page of Google because this service is free.

1. INTRODUCTION

The development of information technology is currently very rapid (Tendean, Rumokoy, & Program, 2018). Currently, all activities can be done using a smartphone. The average person's work today also uses the internet and computer technology. Finding information today is not difficult because by searching on Google, all the information we ask for will appear with many choices of websites. Website is certainly one thing that is needed by humans today. All information centers are currently available in the form of a website that is very easy to find using the Google search engine. However, the quality of each website is certainly different. There are websites that cannot be found on the search engine pages of google, yahoo, etc. There are also search websites that are found on the Google engine page but are not on page 1 of Google. There are also websites that, when searched on the google search engine, occupy page 1 and number 1 on google. From the 3 case studies, it can be said that the quality of each website is certainly different. There are many factors that influence the occurrence of this difference, one of which is the SEO techniques used on the website.

SEO techniques are various processes carried out to increase the quantity of traffic obtained from search engine results to the targeted website by utilizing the algorithm used by each search engine (Hernawati, 2013). This means that if we want to place our website on page no. 1 of Google, of course, we have to use this SEO technique even though the work done by this SEO technique is quite long. A good and good website must be on page 1 of Google. If it is searched using a search engine, then every website that wants to be indexed by search engines, then every website must apply good SEO techniques. Implementing SEO on a website also certainly has a technique, namely by following how the search engine algorithm works. The search process in search engines has three layers, namely crawling, indexing and ranking. Promoting our website on Google is certainly the best thing we should

do. Promotion is important in the process of marketing a product or website (Abshor, Hasiholan, & Malik, 2018). With a good promotion process to search engines, our website will be easily indexed on the first page of Google.

2. Research Method
2.1 Type of Research and Data Collection
The method used in this research is the descriptive method. This descriptive method is used to find out variables without making comparisons or connecting with other variables (Sugiyono, 2018). This research aims so that the website can later be indexed by search engines which can finally be found if searched using a search engine with SEO (Search Engine Optimization) techniques. The way to do this is to use tools such as Google Webmaster, Google Analytics, Moz, and Neil Patel.

2.2 SEO (Search Engine Optimisation)
In this study, the method used is SEO techniques. This technique does take quite a long time when compared to SEM (Search Engine Marketing) techniques, but using SEO techniques works for a long period of time and is also free. SEO is a method that is done by optimizing the parts of a website that affect search results on search engines. In working, SEO has the following stages (Riyanto, 2018):
a. Title Optimization Title assignment.
b. Meta Description Provide keywords so that the website is easily detected by search engines includes three categories, namely meta title, meta description, and meta keywords. Proper use of meta titles and meta descriptions.
c. Heading Tags SEO optimization is focused mainly on H1 heading tags, then on H2 tags, and so on. But it is not necessary to use all 6 HTML elements to form the page.
d. URL Structure Optimization of the URL structure on every page on the website
e. Image Optimization Assign ALT tags and TITLE tags to each image to define the image.
f. Content Optimization of content on web pages that helps websites to appear on search engines.

There are several search engines that use the process of calculating the number of links that can be related between web pages and other websites (Himawan et al., 2017). This can be said as a backlink. Backlinks also affect a website being able to occupy the first page of search engines because the concept of backlinks is that other people's websites include a link to our website on their website so that if someone visits their website, the chances of our website being visited are also great, that's why backlinks also affect our website—search engine search results.

Figure 1. SEO Techniques

3. Results and Discussion
In the application of SEO techniques, the first thing to do is to create a website link name. The name of a good website link is one that is easy to memorize and does not use characters. In this study,

the name of the website used is www. webkuliah.com. The web that is used is not using a free web because a free web with a blogspot.com or wordpress.com domain will affect the level of trust in search engines in the search process and, of course, harm us because the results obtained are not optimal. The next step is to determine the content of the article on the website. The type of article also determines the search process on search engines. Of course, the themes that we should not use are the sale of illegal drugs, gambling, etc. In this study, the articles used are learning materials for vocational students and also student lecture materials.
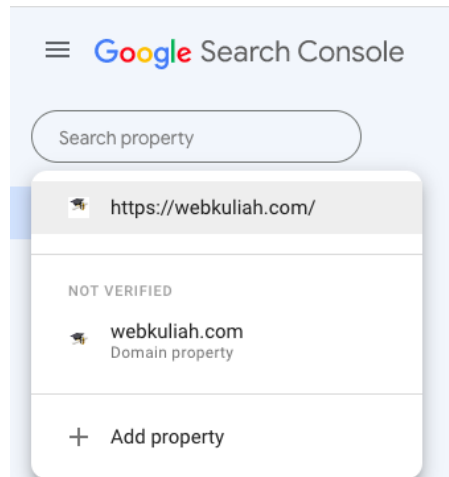

Figure 1. Website Main View

After the website creation and article creation is complete, then the next step is to use Google Webmaster Tools, which functions to register the name of the website that we use to be recognized by Google and index every article to be published. After registering, you will be given a script by the google search console that we must enter into our website. The script serves as a liaison between the website www.webkuliah.com with the google console or google webmaster tools.
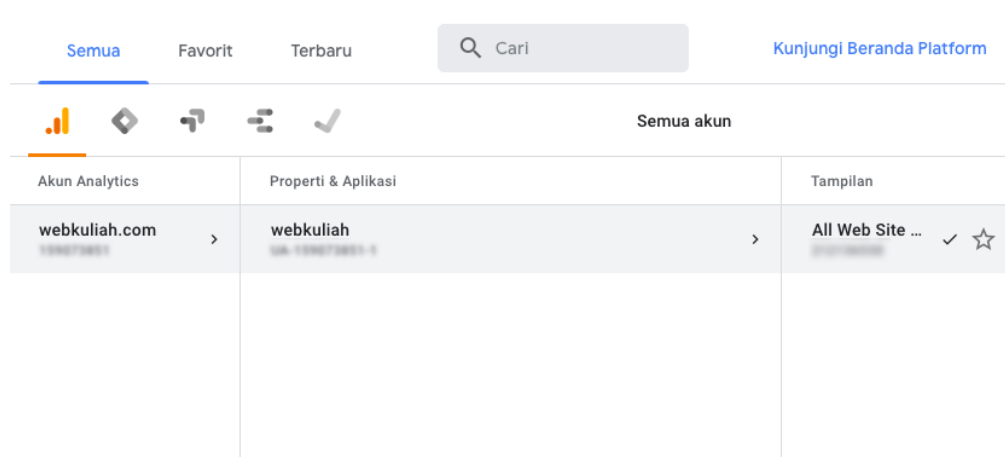

Figure 2. Registering Website To Google Webmaster

After the process of registering the website to Google Webmaster, then registering the website to Google Analytics which functions to monitor real-time traffic on the website www. webkuliah.com, with google analytics, the overall data of visitors will be recorded, and the number will also be recorded how many each day.
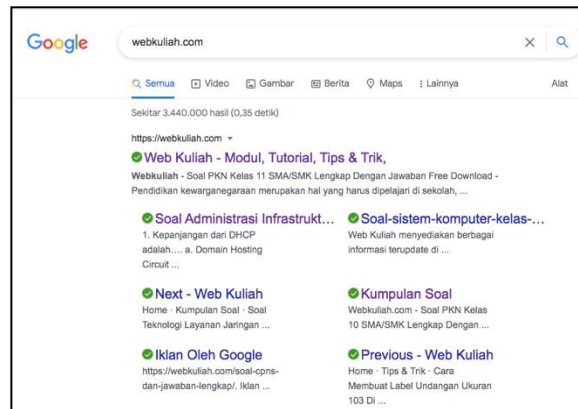
Figure 3. Data Analytics

Based on the results carried out by performing SEO (Search Engine Optimization) techniques on the website www. webkuliah.com, the website managed to occupy the first page of Google. Things that affect the website can occupy the first page of Google because the website is already indexed by Google. But with SEO techniques, to be indexed in search engines takes quite a long time when compared to SEM. But in the long run, SEO is worth using because of its good and free optimization. The link will not be lost if we don't delete it ourselves.
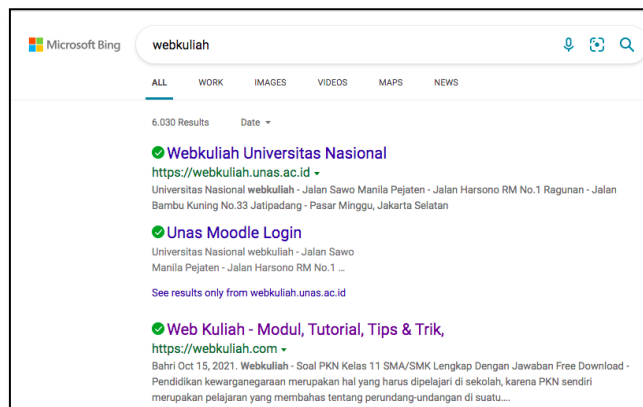

Figure 4. Search Results With Google and Bing

The search results using Moz also show good results with a Domain Authority value of 11 and a spam score of only 1%. The spam score of 1% shows that the website www.webkuliah.com contains good articles, and no spam articles have been detected.

Figure 5. Analysis Results Using MOZ

Furthermore, the test was carried out using Neil Patel. The results obtained are on-page SEO range of 93, organic monthly traffic of 22,699, organic keywords of 2,361, and backlinks of 806. Indeed, if we look at the amount of on-page SEO range, which is only 93, but this figure is quite good because of the age of this website not long ago. The backlinks here are also very helpful for Google to recognize this website because there are 806 other websites that point to the website www. webkuliah.com. Giving website links to social media also affects high traffic on a website because social media traffic is very large, so that the opportunity for our website to be visited is also large (Septa et al., 2014).
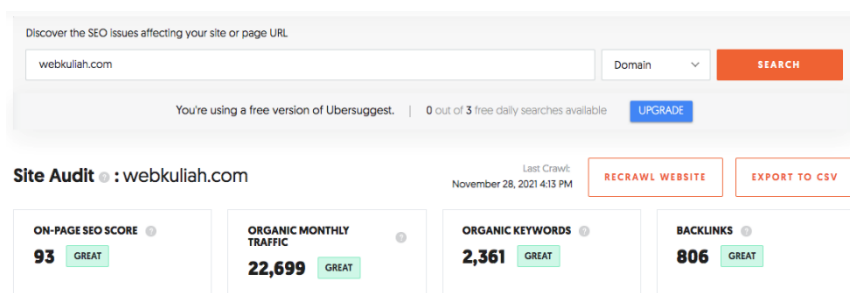

Figure 6. Analysis Using Neil Patel

4. CONCLUSIONS

Based on the results of tests that have been carried out using SEO techniques by registering website links to google webmaster tools, google analytics, and testing using Moz, and Neil Patel gets the results that the website is able to occupy the first page on the search engines google, yahoo, and also bing. This is because it has been registered with Google Webmaster, and the backlink provided is from someone else's website. SEO techniques are indeed very good at promoting certain websites or links, but the results obtained from the use of this SEO technique are for the long term, so this SEO technique cannot be used for short or fast terms, for example, directly indexed on the same day. The most important thing in using SEO is a website that is good, responsive, does not contain spam articles, illegal items, etc., often creates the latest articles without plagiarism, and high traffic every day. If all of these are met, the search engine algorithm will consider the website good and will continue to recommend the website for other users to visit.

5. REFERENCES

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