

SEARCH ENGINE OPTIMIZATION (SEO) STRATEGIES AND TECHNIQUES TO INCREASE SALES

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ABSTRACT

Internet users usually use search engines to look up something they want. Usually most of the internet users are more interested in the sites on the first page of google or ranked 10 to 20 on the google page, and only a few see the sites on the next page. Therefore, most site or website owners try to get their website to be in the first page or top 10 to 20 results on the google search engine with defined keywords, namely by using SEO techniques; and apply SEO On Page and SEO Off Page methods. Search Engine Optimization or SEO is a series of techniques carried out so that websites can be easily found by information seekers through search engines. Trijaya Mandiri welding shop is a firm that offers services in the construction of household needs such as swivel stairs, canopies, trellises and fences made of mild steel or iron. Therefore, by maximizing SEO techniques, it is hoped that the Trijaya Mandiri welding shop website that will be built can occupy the top 10 searches to increase sales results.

Keywords: Search Engine Optimization, Search Engine Result Page, Search Engine

1. INTRODUCTION

Trijaya Mandiri welding shop is a firm that offers services in the manufacture of household construction needs such as swivel stairs, canopies, trellises and fences made of mild steel or iron. The current business process at this firm is still manual, one of which is marketing or promotion in a conventional way, namely waiting for customers to come through business cards that are distributed around the welding workshop location and word of mouth (Anne Ratnasari, dkk. 2019).

Based on the problems above, it can be concluded that this welding shop needs innovations to change its manual systems into computerized systems for faster (Dian Mutiah Laraswati and Dina Dellyana. 2016), precise and accurate results so that it can make it easier for firm owner to serve their customers and to increase customer attractiveness.

One of the most powerful promotions for an online business is by making a large search engine like Google a 24/7 salesman for free. Promotion by search engines is the cheapest but effective way to promote. However, before promoting on search engines, online business websites must first get optimization for the needs of search engines or more commonly known as SEO (Rakesh Kumar and Shiva Saini, 2011). SEO stands for Search Engine Optimization, which is a series of techniques carried out so that websites can be easily found by information seekers through search engines, in this case Google.

A system can be defined as elements of procedures that are interconnected and gathered into one to carry out an activity or to complete a certain goal. The Unified Modeling Language, abbreviated as UML, consists of a set of structures and

techniques with standard languages that are widely used in the industrial world and their applications for defining requirements, making analysis and design, and describing architecture in object-oriented programming (OOP) (Irawan Dwi Nugroho. 2019). Selling can be defined as a technique used by sellers to give suggestions to other people to be interested in buying the goods or services they offer; and with the sale, a process of exchanging goods or services between the seller and the buyer is created (Annisa Chantya and Sunaryo. 2016). A website is defined as a means of information in the form of pages that usually contain text, images, sound or video from the internet so that it can be accessed anywhere as long as it is connected to the internet network (Nugroho Saputra, dkk. 2022). CMS is a web-based application that is used to manage website content. CMS usually has the ability to update articles, web pages, manage menus and web pages. Search Engine Optimization, or better known as SEO, is a technique that is applied to make the target website easily found by information seekers (visitors) from the search engine "google" on the first page or the top 10 search results. SEO methods can be divided into 2 (two) kinds, the first is On Page SEO which applies meta tags and Off Page SEO which adds backlinks to increase visitor traffic (Bayu Widia Santoso, dkk. 2016). Based on the problems in the previous research, it can be concluded that applying SEO techniques, especially SEO On Page can help information so that the website is easily recognized by search engines on google.

2. RESEARCH METODOLOGY

A. Activity Diagram of the Current System

This Activity Diagram describes the the process flow in the current system. It shows that the welding shop issues product and price information in a catalog, then the customer will check the catalog. If the customer is interested in the product offered, the customer will order the goods which will then produced by the welding shop. After that, the customer makes the payment and the process finishes. If the customer is not interested in the products offered, the customer will look back at the product catalog according to the customer's wishes.

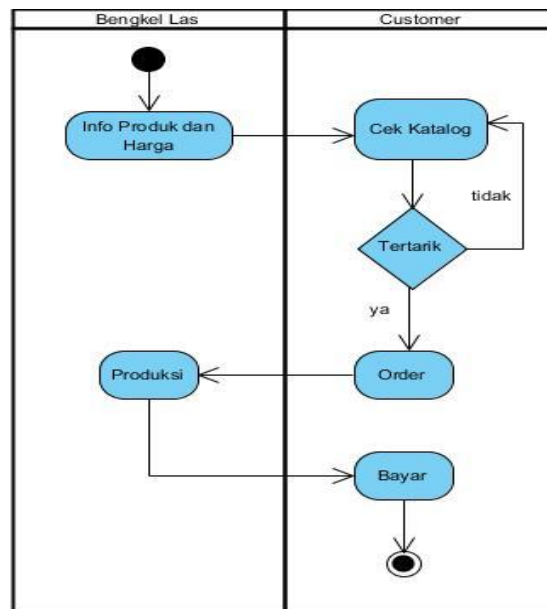


Figure 2. Activity Diagram of the Current System

B. Problems encountered

The following are the problems faced by the Trijaya Mandiri welding shop:

1. Inflexibility of service, because if the customers want to consult about the type, price, and model of construction, they have to come directly to the workshop. This may waste the customer's time if they are far from the workshop location because it is difficult to get information quickly.

2. Media promotion is carried out only through business cards which are disseminated around the welding workshop location and through word of mouth, so that the market area is less extensive and the number of customers is minimal, the profits generated are only from around the workshop environment.

3. There is a vast consumers' curiosity about examples of models or construction, so it is necessary for the workshop to have a website to make it easier for consumers to find out examples of models in the catalog.

4. When the website is online, it needs to be known by potential customers and can be searched on search engines such as Google.

C. Alternative Troubleshooting

Based on the problems stated above, the author has several alternative solutions for the problems, namely:

1. By creating a website, it is expected to increase sales profits at the Trijaya Mandiri welding shop and to provide a faster promoting media because it is based online.

2. By creating a website that displays a private chat menu between consumers and workshop owners for further consultation.

3. By using SEO techniques to make it easier for the website to be found in search engines, be it Google, Yahoo etc.

4. By using keywords that are searched for by many search engines so that more visitors visit the Trijaya Mandiri welding workshop website

3. RESULTS AND DISCUSSION

A. System Design

This stage explains the design of the model diagram which is an object approach from the system design that is made, as well as the creation of the domain, the creation of hosting and the installation of the CMS.

1. Use Case Diagram

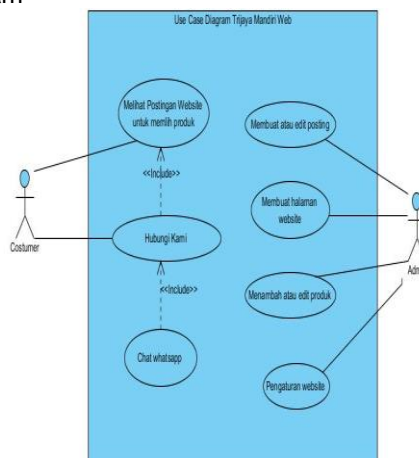


Figure 3. Use Case Diagram of Trijaya Mandiri Welding Shop's Website

- A. 1 (one) system which is a proposed system at Trijaya Mandiri welding shop.
 - B. 2 (two) actors who can carry out activities, namely consumers and admins.
 - C. 7 (seven) use cases that can be carried out by the actor.
 - D. 2 (two) includes can be explained that the use case is derived from the previous use case.
2. Domain Creation
A domain name is generated according to the name of the place of business, namely "bengkellastrijayamandiri" with a .com TLD domain. The domain is made on a paid domain provider service, namely at warunghosting.com.

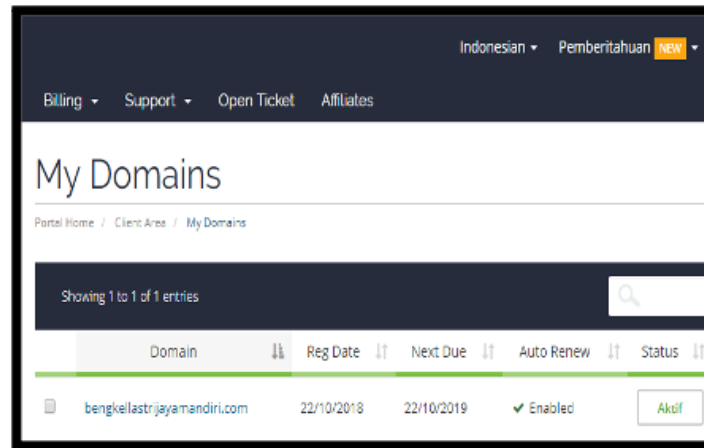


Figure 3. Domain Website

3. Hosting Creation
The hosting used is a paid hosting service provider, warunghosting.com, with p250 hosting with a capacity of 250 SSD and 2.5 Gb Bandwitch. Here is the hosting created by the author on tokohsoting.com

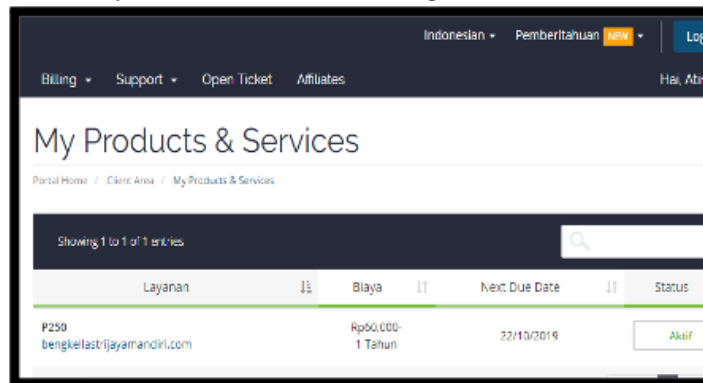


Figure 4. Hosting Website

4. CMS Instalation
WordPress is installed using cPanel's assistance through softaculous, which is an additional feature in cPanel that will make it easier for the author to install WordPress.

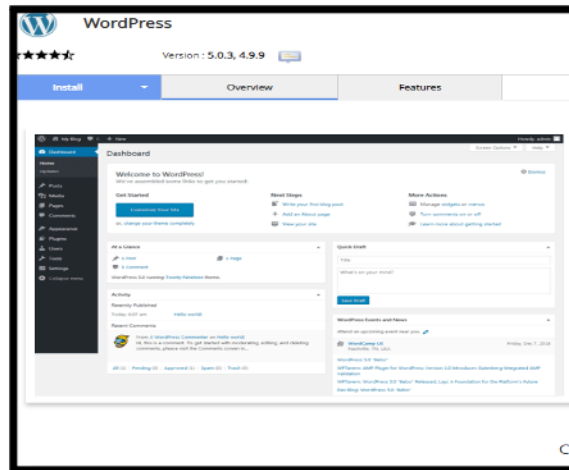


Figure 5. Website Installation

B. Implementation of SEO (Search Engine Optimization)

The implementation of this SEO method is carried out in several stages as described previously. These stages are registering the website with Google Search Console and Google Analytics as well as adding a plugin to the WordPress CMS.

1. Registering a Website to Google Search Console

Registering the Trijaya Mandiri welding workshop CMS website to Google Search Console so that the website is indexed properly by the google search engine.



Figure 6. Google Search Console

2. Registering a Website to Google Analytics

Registering a website with google analytics to provide detailed reports on visitors to the website of Trijaya Mandiri welding shop so that you can find out the number of visitors per day, week, or month

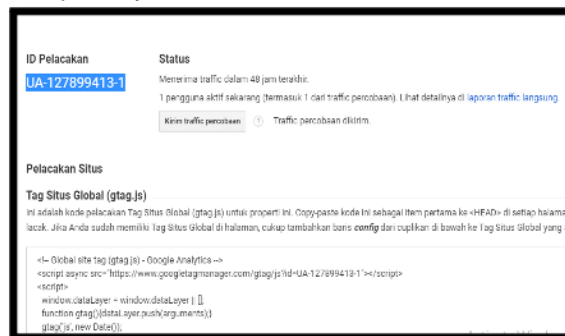


Figure 7. Google Analytics

3. Keyword Application

Before keywords are applied to optimize SEO, a keyword research is carried out. There are several keyword results that have been summarized here to be applied to articles made by the website of Trijaya Mandiri welding shop. It aims to attract visitors from search engines based on the most keyword searches on google. After that, the authors select keyword that is most commonly used by using the Google Keyword Planner with link <https://adwords.google.com/um/Welcome/Home/>.

Keyword	Currency	Avg. monthly searches	Min search volume	Max search volume
produk bengkel las	IDR	T/A	10	100
kanopi unik	IDR	T/A	100	1.000
tangga besi minimalis	IDR	T/A	1.000	10.000

Figure 8. Results of *Keyword Research*

4. Competition Research

The target keywords that have been selected still have to be analyzed whether the competition for these keywords is difficult to apply SEO or very likely to be applied by SEO. If the keyword competition is not difficult, then that will be applied to the next SEO technique

The screenshot shows the 'SEO Competition' interface for the keyword 'produk bengkel las'. It displays a table of search engine results with columns for Rank, URL, DA, PA, TR, C, RDG, HREF, SERP, DRG, DRG2, DRG3, DRG4, DRG5, DRG6, DRG7, DRG8, DRG9, DRG10, DRG11, DRG12, DRG13, DRG14, DRG15, DRG16, DRG17, DRG18, DRG19, DRG20, DRG21, DRG22, DRG23, DRG24, DRG25, DRG26, DRG27, DRG28, DRG29, DRG30, DRG31, DRG32, DRG33, DRG34, DRG35, DRG36, DRG37, DRG38, DRG39, DRG40, DRG41, DRG42, DRG43, DRG44, DRG45, DRG46, DRG47, DRG48, DRG49, DRG50, DRG51, DRG52, DRG53, DRG54, DRG55, DRG56, DRG57, DRG58, DRG59, DRG60, DRG61, DRG62, DRG63, DRG64, DRG65, DRG66, DRG67, DRG68, DRG69, DRG70, DRG71, DRG72, DRG73, DRG74, DRG75, DRG76, DRG77, DRG78, DRG79, DRG80, DRG81, DRG82, DRG83, DRG84, DRG85, DRG86, DRG87, DRG88, DRG89, DRG90, DRG91, DRG92, DRG93, DRG94, DRG95, DRG96, DRG97, DRG98, DRG99, DRG100. The table lists various URLs and their associated metrics.

Figure 9. Results of *Competition Reseach*

5. Implemngtation of *Meta Tags*

a. Iplemmentation of *Meta Title Tag*

```
74 <meta property="og:title" content="Produk Bengkel Las Tangga Besi Minimalis dan Kanopi Unik" />
75 <meta property="og:description" content="Produk bengkel las trijaya mandiri terdiri dari tangga besi
minimalis, model pagar besi minimalis, teralis jendela minimalis, pintu pagar, kanopi minimalis." />
```

Figure 10. Implementation of *Meta Title Tag*

b. Implementation of *Meta Description*

```
69 <!-- This site is optimized with the Yoast SEO plugin v9.4 -
https://yoast.com/wordpress/plugins/seo/ -->
70 <meta name="description" content="Produk bengkel las trijaya mandiri terdiri dari tangga besi
minimalis, model pagar besi minimalis, teralis jendela minimalis, pintu pagar, kanopi minimalis." />
```

Figure 10. Implementation of *Meta Tags*

6. *URL Indexing*

The URL of the article or page on the website of Trijaya Mandiri welding shop which has been equipped with meta tags and image alt tags must be indexed into google. The indexing is done on the site <https://search.google.com/search-console/about>.

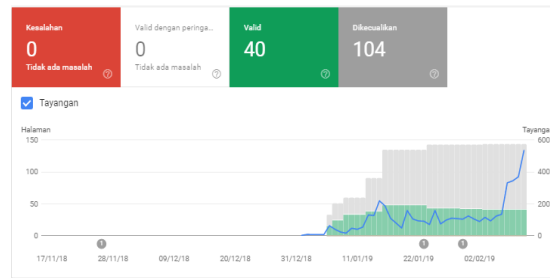


Figure 11. Results of URL Indexing

7. Sitemap Indexing

The optimization of the website that is built is then applied by SEO, namely by creating an XML-based sitemap. It aims to provide information about all pages and content on the web to the google search engine, in this case the google search console.

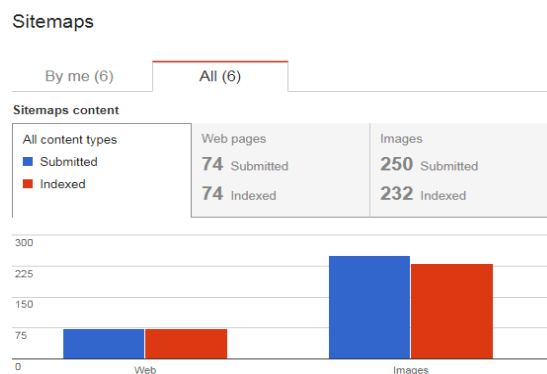


Figure 12. Sitemap Results

C. SEO Testing

1. Website Traffic Testing

In this study, the website traffic testing was carried out using the Google Analytics Dashboard for WP (GADWP) plugin that had been installed in WordPress. The test was carried out from January 4 - February 14 2019. By utilizing the Google Analytics Dashboard for WP, the Admin can find out the statistical analysis of the website contained on the <https://bengkellastrijayamandiri.com> in the form of the number of visitors from the site.

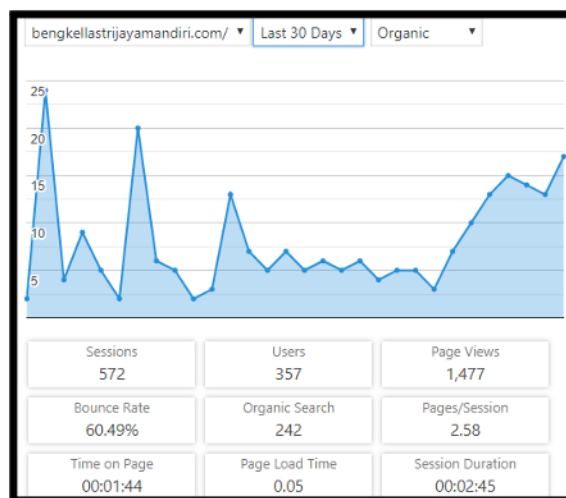


Figure 13. Website Traffic Testing

2. Backlink Testing

On other websites, a link is embedded that leads to the workshoplastrijayamandiri.com website so that SEO optimization becomes more effective. The image below is the result of the backlink that has been applied to the workshoplastrijayamandiri.com website.

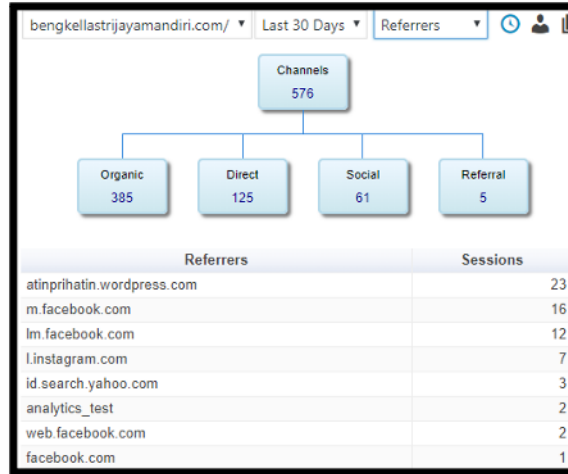


Figure 14. Backlink Testing

3. Keyword Query Testing

Keyword queries testing on articles on website workshoplastrijayamandiri.com uses two methods, the first is by using the online tool SERPROBOT from the site <https://www.serprobot.com/serp-check.php> and the second is by keyword queries testing in search engines.

a. Test with serprobot

Testing on Serprobot on February 14, 2019 using several keyword queries from the website <https://bengkellastrijayamandiri.com>, showed the results of the website article positions.



Figure 15. Results of Serprobot

Figure 15 shows that the welding shop product keyword is ranked 2nd, the unique canopy is in the first position and the minimalist iron ladder is in the 2nd position on the first page of Google.

D. b. Test on search engine

After several times testing the website's position on the google search engine with the keyword "welding workshop products", it can occupy the 2nd position as shown in the following image:



Figure 16. Results of the Test on Search Engine

E. Display Design

Header Home Page Header

1. The header Home page is the application's start page that displays the company logo and application menu

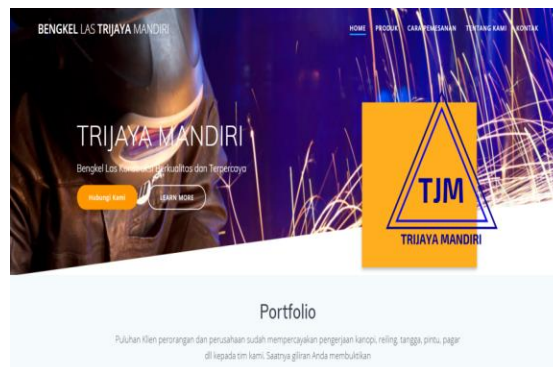


Figure 17. Header Homeopage

2. *Middle Homepage*

The Middle Home page is the home page in the middle that displays the portfolio on the application.

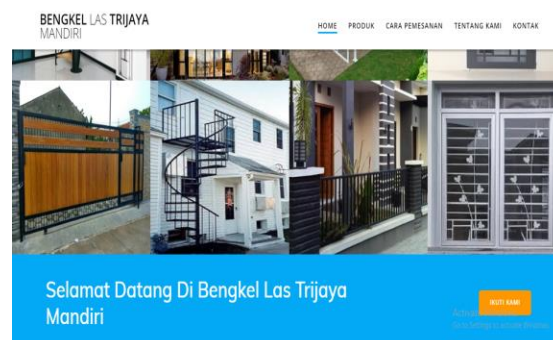


Figure 18. Middle Homepage

3. *Footer Home Page*

Footer Home page is a page at the bottom of the application that displays the category and copyright of the application.

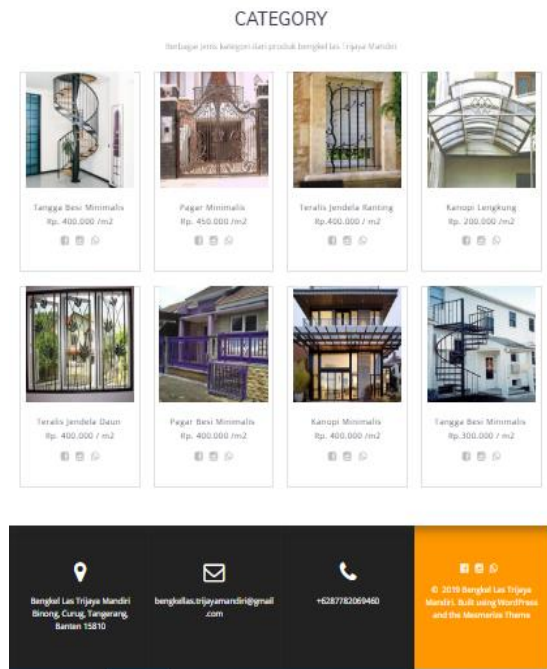


Figure 19. Footer Homepage

4. CONCLUSION

The website of Trijaya Mandiri welding shop was built was using a WordPress-based CMS (Content Management System). To increase the website's position in the top ten searches, the author applies SEO techniques by registering the website to the google search console, google analytics, keyword research and competition research, applying keywords to meta tags, sitemaps indexing, and inserting website links. to blogs, facebook and instagram. From these SEO techniques, it can be tested on the search for the keyword "welding workshop products" to rank second, the keyword "unique canopy" is ranked first and the keyword "minimalist iron ladder" is ranked first in the top 10 on the first page of Google.

The selection of keywords that are applied to SEO is researched from the Google Keyword Planner site by choosing unique keywords and there are searchers on Google. From the results of keyword research, there are 3 (three) keywords that are applied to SEO, namely welding workshop products, unique canopies and minimalist iron stairs.

The SEO method used in the Trijaya Mandiri welding shop website is by using the SEO On Page and SEO Off Page methods. The technique used in SEO On Page is to create articles and website pages that apply keywords to meta tags, the technique used in SEO Off Page is to add a website link to the Trijaya Mandiri welding workshop to Facebook, Instagram and other blogs to increase visitor traffic so that the application SEO becomes more effective.

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