Design Website for Digital Promotion SMEs Product by Optimize SEO Techniques

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ABSTRACT

Small and medium-sized enterprises (SMEs) frequently face challenges in effectively promoting and selling their products online. This study aims to develop an optimized website design for digital promotion of SME products, incorporating enhanced search engine optimization (SEO) techniques. The paper first reviews key barriers inhibiting SMEs from harnessing digital channels, including limited expertise and resources in web development, SEO, and online marketing. Core principles of effective website design are then introduced, covering aspects like user-friendly interfaces, high-quality content, efficient site architecture, and responsive layouts. Building on this, SEO best practices are outlined based on an analysis of major ranking signals and algorithmic behavior. An integrated methodology is subsequently proposed for planning and creating SEO-optimized websites tailored to SME product promotion. The methodology incorporates defining goals and KPIs, competitor analysis, keyword research and mapping, optimized content development, technical site optimization, performance tracking, and continuous improvement. To validate the efficacy of this methodology, the study implements it in developing an e-commerce website for a small homemade food business. KPIs including organic traffic, conversions, and revenues are tracked before and after site development. The results demonstrate significant increases across key indicators, highlighting the effectiveness of the proposed approach in bolstering SME digital promotion through optimized website design and SEO. The methodology and findings aim to provide an accessible, impactful framework for SME adoption of digital channels.

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1. INTRODUCTION

Tourism has become one of the major contributors to the global economy, providing employment and generating revenue for the countries[1]. The advancement of technology has brought tremendous changes to the way the tourism industry operates. The use of the internet as a promotional tool has become an essential part of destination marketing. The development of web-based applications has provided an opportunity for tourism stakeholders to promote their destinations through online

channels. However, the effectiveness of a website as a promotional tool depends on its visibility to the target audience[2]. Traditional tourism promotion media include brochures, billboards, posters, and print advertisements in newspapers and magazines. They are effective in reaching out to local communities and travelers who are not yet tech-savvy. However, their reach is limited, and they may not be able to convey the latest information about tourism products and services. On the other hand, digital tourism promotion media are internet-based channels, including websites, social media platforms, search engines, and email marketing[3]. They provide tourism stakeholders with a broader and more diverse audience, including global travelers. Digital media also allow for more interactive, personalized, and up-to-date content that can be tailored to the needs and preferences of individual users[4].

Search Engine Optimization (SEO) is a widely used technique in improving the visibility of websites on search engines[5]. It involves the optimization of website content to increase its ranking on search engine results pages[6]. The use of SEO in the development of web-based applications for tourism promotion has become essential for increasing the visibility of websites to potential visitors. Search Engine Optimization (SEO) is a digital marketing strategy [7] used by tourism stakeholders to improve the visibility and ranking of their websites on search engines. SEO involves optimizing website content and structure, using relevant keywords, building high-quality backlinks, and following search engine guidelines. By doing so, tourism stakeholders can increase their website traffic, enhance user engagement, and ultimately generate more bookings and revenue[8].

This research aims to provide a solution for tourism development in the coastal village of Pari Kota, particularly for the Dusun Nusantara community, through the development of a web-based application as a tourism promotion media. The application will use SEO techniques [9] to improve its visibility on search engine results pages, making it easier for potential visitors to find the website. The research framework for this study will comprise three main stages: the development of the web-based application, the implementation of SEO techniques, and the evaluation of the application's effectiveness in promoting tourism in Kota Pari Village.

The study will focus on the Dusun Nusantara community and its tourism products to determine the effectiveness of the developed application in promoting their destinations. The findings of this study are expected to contribute to the development of the tourism industry in Pari Kota and other coastal villages by providing a solution for destination promotion through online channels.

2. RESEARCH METHOD

White hat SEO refers to ethical and legitimate techniques that follow search engine guidelines and aim to improve the ranking and visibility of a website in search engine results pages (SERPs). White hat SEO methods prioritize user experience and content quality, and do not involve any deceptive or manipulative tactics that could harm the website's reputation or ranking in the long term[10].
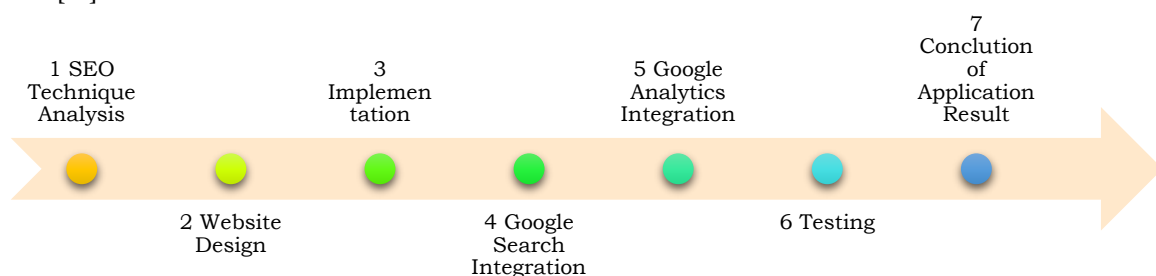

Figure 1. Research Method Flow

3. RESULTS AND DISCUSSIONS

A. Overview of Dusun Nusantara Web-based Application

Dusun Nusantara is a web-based application that aims to promote tourism in the village of Kota Pari Pantai Cermin, North Sumatra, Indonesia. The application was developed to provide information about tourist destinations, accommodations, and activities in the area. It also allows users to make reservations and plan their trips. The Dusun Nusantara web-based application was developed using the Wordpress CMS, PHP framework and MySQL database[11]. The front-end of the application was designed using HTML, CSS, and JavaScript, while the back-end was developed using PHP.

The application consists of several features, including a home page, a destination page, an accommodation page, an activity page, and a reservation page. The home page provides an overview of the tourist attractions and activities available in the area, while the destination page provides detailed information about each tourist spot, including its location, description, and photos. The accommodation page provides information about available accommodations in the area, including hotels, guesthouses, and homestays. The activity page provides information about activities that can be done in the area, such as hiking, fishing, and sightseeing. Finally, the reservation page allows users to make reservations for accommodations and activities in the area. Overall, the Dusun Nusantara web-based application is designed to provide users with a comprehensive guide to the tourist attractions and activities in the village of Kota Pari Pantai Cermin.

B. Implementation of Search Engine Optimization (SEO)

The implementation of White Hat SEO strategy involves a systematic and well-planned approach to achieve optimal results. The initial stages of research preparation involve analyzing website design, implementing White Hat SEO approaches, integrating with Google Search Engine and Google Analytics[12], testing, and drawing conclusions based on the implementation outcomes. The planning phases for applying White Hat SEO strategies to websites are illustrated in Figure 2 and described below.
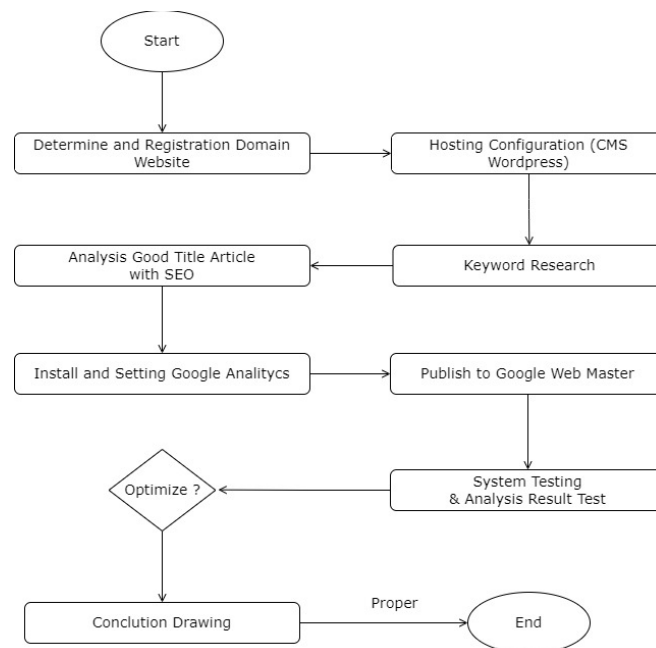

Figure 2. Flowchart of White Hat SEO Implementation Stages

Figure 2 shows a flowchart that outlines the planning process of White Hat SEO, which begins with registering a domain with Google and concludes with decision-making. The system runs until the stage is successfully completed or functions as anticipated. In case the results are not satisfactory, the process goes back to the initial step, which involves registering a domain with Google. The acronym SERP refers to the Search Engine Result Page that displays top keywords from search engines like Google, Bing, Yahoo, and so on. The SERP's objective is to evaluate the caliber of our website or blog, with a higher quality website or blog attaining a higher position in search engine results (SERP).
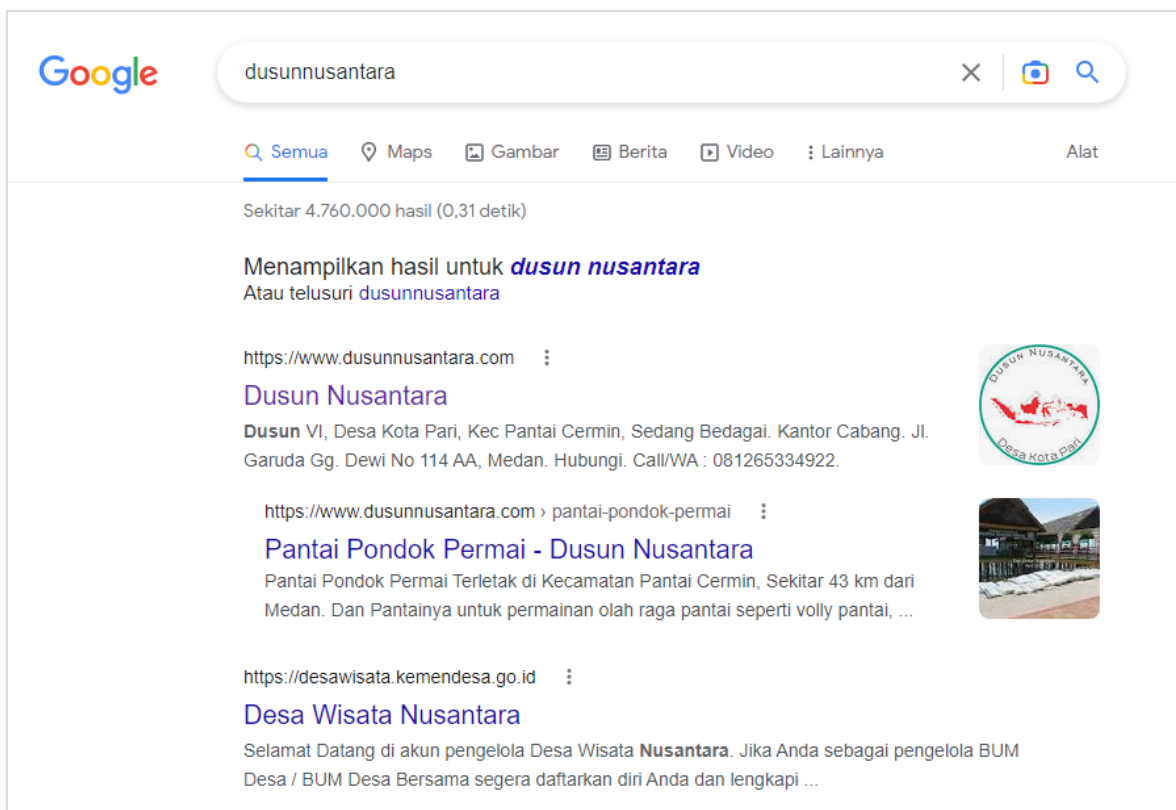

Figure 3. SERP display after SEO is applied

1) Keyword Reseacrh

By doing the following, the appropriate keywords [13] for the website can be determined and maximize traffic and conversion. Here are some ways to determine keywords, such as:

- Relevant Keyword Analysis: identify relevant keywords that fit the website topic.
- Analyze Competitor Keywords: see what keywords your website competitors are using to attract traffic.
- Use Keyword Research Tools: some tools like Google Keyword Planner, SEMrush, and Ahrefs can help you find potential keywords.
- Use Long-Tail Keywords: focus on long-tail keywords as they are easier to achieve and more targeted.
- Connect with Your Audience: make sure the keywords you choose meet the needs and questions of your target audience.

The table below is the result of keyword research for the Dusun Nusantara website:

Table 1. The result of keyword research

Keyword
wisata pantai cermin untuk keluarga
tempat wisata pantai cermin murah
pantai cermin untuk berenang dan naik boat
pantai cermin dengan pemandangan indah
wisata pantai cermin di malam hari
pantai cermin untuk berkeliling dengan sepeda
wisata pantai cermin untuk bersantai
tempat wisata pantai cermin untuk berfoto
pantai cermin dengan penginapan murah
pantai cermin dengan berbagai aktivitas menyenangkan

2)   Meta Description

Here are the results of the meta description and some steps to create an effective meta description:

- Create descriptive and attractive descriptions: write clear descriptions that describe the content of the website page.
- Use target keywords: make sure target keywords are listed in the meta description.
- Ideal length: not too long or too short. The ideal meta description is about 155 characters long.
- Avoid duplicates: make sure the description is unique and not duplicated from other pages on the website.
- Don't make misleading descriptions: make sure the description really represents the content of the website page.

Table 2. The result of Meta Description

Meta Description
"Temukan pengalaman wisata pantai terbaik di Pantai Cermin. Nikmati pemngan indah dan berbagai aktivitas seru seperti berenang, naik boat, dan berfoto. Temukan penginapan murah dan nyaman di sekitar pantai. Kunjungi website kami sekarang untuk informasi lebih lanjut."

```php
<?php
if ( is_single() ) {
  $post_description = get_post_field( 'post_excerpt', $post->ID );
  if ( ! empty( $post_description ) ) {
    $meta_description = $post_description;
  } else {
    $meta_description = wp_trim_words( $post->post_content, 20 );
  }
} else {
  $meta_description = get_bloginfo( 'description' );
}

echo <meta name="description" content= "Temukan pengalaman wisata pantai
    terbaik di Pantai Cermin. Nikmati pemngan indah dan berbagai aktivitas
    seru seperti berenang, naik boat, dan berfoto. Temukan penginapan murah
    dan nyaman di sekitar pantai. Kunjungi website kami sekarang untuk
    informasi lebih lanjut" "' . esc_attr( $meta_description ) . '">;
?>
```

Figure 3. Meta Description Implementation

3)   Title for a Blog

Here are the results and steps for creating a creative and atractive title for a blog post:

- Focus on target keywords: make sure keywords relevant to the blog post topic are listed in the title.
- Create a title that describes the content: make sure the title describes the content of the blog post in a clear and attractive way.
- Use interesting thoughts: use language that sells, intrigues, or intrigues.
- Create a unique and non-duplicate title: make sure the title is not the same as another blog post title.
- Ideal length: make sure the title is not too long or too short, the ideal length is around 10-12 words.

Table 3. The result of Title for Blog

Title
"10 Manfaat Wisata Pantai Cermin untuk Kesehatan dan Keluarga"
"Mengapa Wisata Pantai Cermin Harus Masuk Dalam Wishlist "
"Bersantai dan Recharge dengan Wisata Pantai Cermin"
"Keluarga dan Anak-anak Pasti Senang dengan Banana Boat Pantai Cermin"
"Pantai Cermin, Tempat Wisata yang Mengajarkan Kita Tentang Kebahagiaan"
"Memahami Manfaat Wisata Pantai Cermin untuk Tubuh dan Pikiran"
"Pantai Cermin, Tempat Terbaik untuk Menguji Kemampuan Berenang"
"Wisata Pantai Cermin untuk Meresapi Keindahan Alam dan Kelegaan"
"Pantai Cermin, Tujuan Wisata Terbaik untuk Keluarga dan Pasangan"
"Nikmati Liburan yang Berkesan di Wisata Pantai Cermin"

4) Internal Link

Here are 10 internal linking suggestions for a website about Cermin Beach Tourism:

- Link to the "Aktivitas Populer di Pantai Cermin" page from the "Ikhtisar Wisata Pantai Cermin".
- Link to the "Tempat Menginap dekat Pantai Cermin" page from the "Perencanaan Perjalanan ke Wisata Pantai Cermin".
- Link to the "Tahapan untuk Olahraga Air di Pantai Cermin" page from the "Aktivitas Populer di Pantai Cermin".
- Link to the "Sejarah dan Budaya daerah sekitar Pantai Cermin" page from the "Ikhtisar Wisata Pantai Cermin".
- Link to the "Makanan dan Minuman di Pantai Cermin" page from the "Tempat Menginap dekat Pantai Cermin".
- Link to the "Bagaimana sampai ke Pantai Cermin" page from the "Perencanaan Perjalanan ke Wisata Pantai Cermin".
- Link to the "Festival dan Acara Lokal di Pantai Cermin" page from the "Sejarah dan Budaya daerah sekitar Pantai Cermin".
- Link to the "Waktu Terbaik untuk Mengunjungi Pantai Cermin" page from the "Perencanaan Perjalanan ke Wisata Pantai Cermin".
- Link to the "Pertanyaan yang Sering Ditanyakan tentang Wisata Pantai Cermin" page from the "Ikhtisar Wisata Pantai Cermin".
- Link to the "Tahapan untuk Mengambil Foto yang Luar Biasa di Pantai Cermin" page from the "Aktivitas Populer di Pantai Cermin".

C. Website Crawling Results on the Google Search Engine
    Web scraping or web crawling refers to the procedure of automatic extraction of data from websites using software. It is a process that is particularly important in fields such as Business [14]. This following SERP display after SEO is applied.
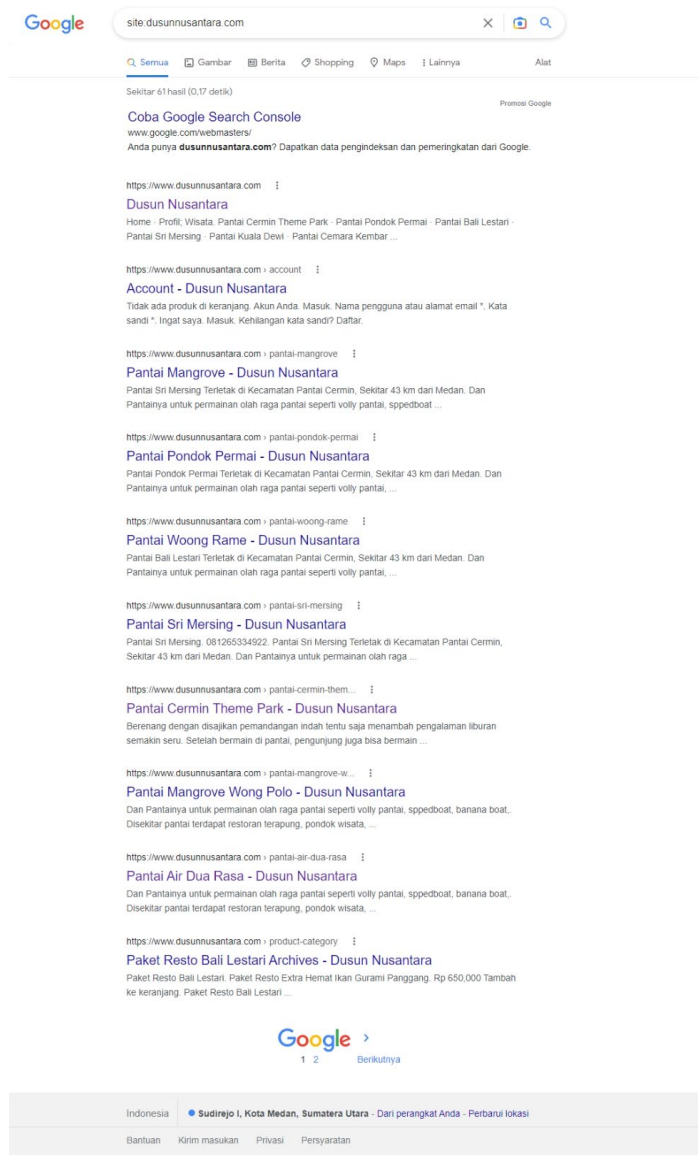

Figure 4. SERP display after SEO is applied

D. Analysis of SEO Effectiveness

The analysis of the effectiveness of SEO in promoting Dusun Nusantara as a tourism destination was conducted by evaluating the website's performance on search engine results pages (SERPs). The following key performance indicators were monitored and analyzed:

a. Keyword ranking: The ranking of targeted keywords related to Dusun Nusantara on major search engines such as Google was monitored[4].

b. Traffic: The number of visitors to the Dusun Nusantara website was tracked to measure the impact of the SEO strategy.
c. Click-through rate (CTR): The percentage of users who clicked on the website link on the SERP was calculated to evaluate the effectiveness of the meta description and title tags[15].
d. Bounce rate: The percentage of users who left the website after viewing only one page was analyzed to determine the relevance and user-friendliness of the website[16].
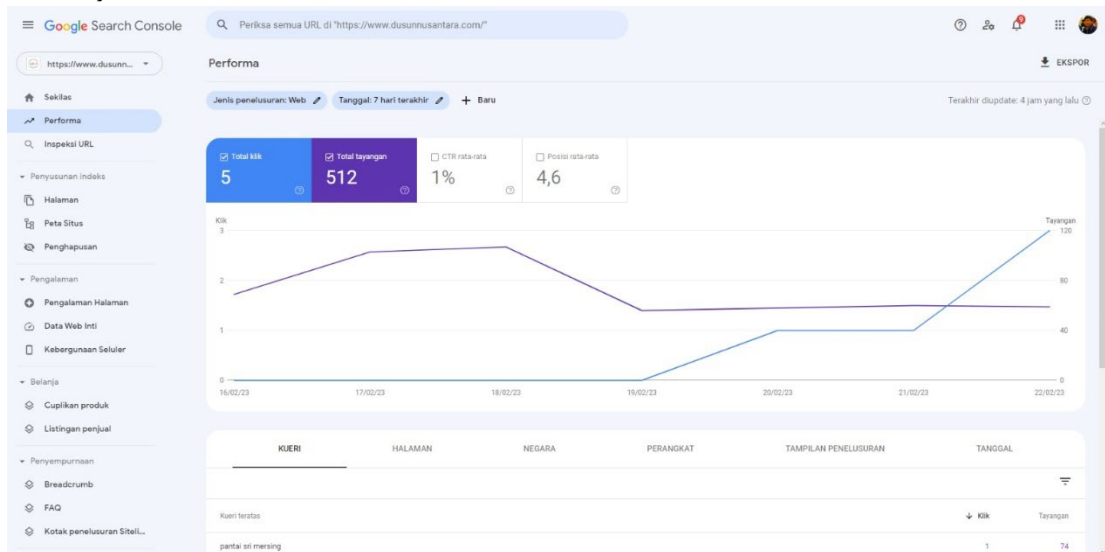

Figure 5. Last 7 Days Google Webmaster

Google Analytics can be used to determine the growth of website traffic [17], the number of website readers or the number of social networks linked to Google. The perspective of Google Analytics usage in 90 days is shown in Figure 6. The audience statistics review for the last three months includes up to 1000 users, Since the first month of usage, there has been a growth of 78% bounce rate in the third month after the implementation of SEO.
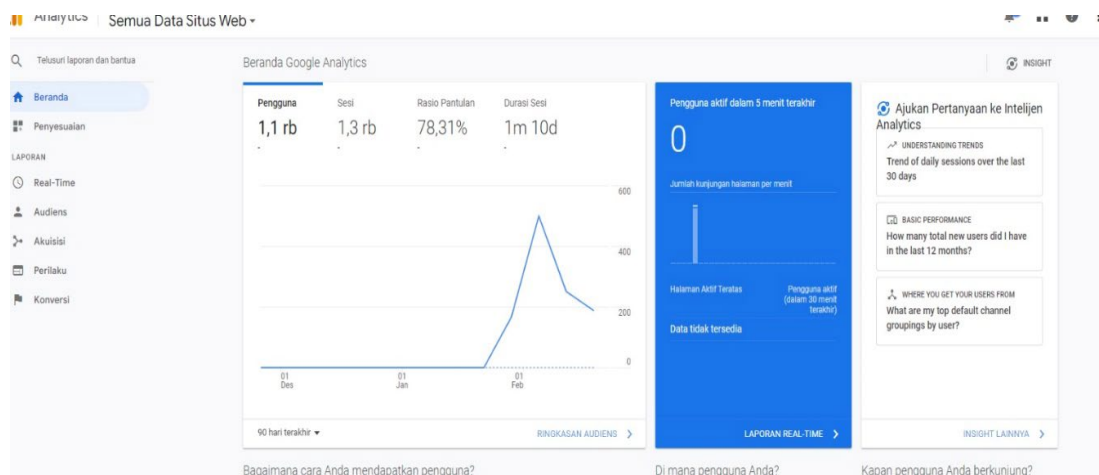

Figure 6. 3th Month Google Analytics

4. CONCLUSION

Based on the research Implementation of Search Engine Optimization on Dusun Nusantara Web-based Application as Tourism Promotion Media, it can be concluded that the application of search engine optimization techniques to Dusun Nusantara web-based applications has significant effectiveness in increasing the visibility and attractiveness of these applications as promotional media. tourist. By using the right SEO strategy, such as conducting relevant keyword research and optimizing the metadata on the page, you can increase the page's ranking on search engines and thereby increase the number of visits and user interaction with the application growth of 78% bounce rate. Therefore, the application of SEO techniques to web-based applications can be an effective and affordable strategy in promoting tourism and increasing local tourist attractiveness.

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