Analysis of Search Engine Optimization Application on Markas Gamers' Website

Angelina Permatasari [a], Eduard Pangestu Wonohardjo [b], Desman Hidayat [c], Manise Hendrawaty [d], Hartato [e]
[a] Information Systems Department, School of Information Systems,
Bina Nusantara University
Jakarta, Indonesia 11480
angelina_psw@binus.ac.id
[b] Computer Science Department, Binus Online Learning,
Bina Nusantara University
Jakarta, Indonesia 11480
eduard.wonohardjo@binus.ac.id
[c] Binus Entrepreneurship Center, Management Department,
Bina Nusantara University
Jakarta, Indonesia 11480
d4906@binus.ac.id
[d] Information Systems Department, School of Information Systems,
Bina Nusantara University
Jakarta, Indonesia 11480
manise.hendrawaty@binus.ac.id
[e] Information Systems Department, School of Information Systems,
Bina Nusantara University
Jakarta, Indonesia 11480
hartato@binus.ac.id

ABSTRACT

Objective – With the rapid development of information technology and the increasing number of websites, search engines like Google will be increasingly strict in sorting out the best websites with useful information for their users. This causes website owners to increasingly aggressively improve the quality and popularity of their websites in various ways, such as using advertisements, branding on social media, to the use of SEO (Search Engine Optimization) to support the quality of the website so that it can compete in search engine ranking results.
Methodology – The method used in this research is to redesign the user interface and apply SEO methods.
Findings – Being able to improve the metrics of the website can be significantly improved both from its URL Rating and Domain Rating and increase visitor traffic as a source of profit for a website.
Novelty – This research was conducted on a new website that initially had not implemented SEO and had not been maximized in designing its User Interface.
Keywords: Google; Markas Gamers; Redesign; SEO; Website Optimization

I. INTRODUCTION

Today's technology is closely related to the internet in every usage. A significant change from when readers looked for information in print media to the website as it is now easier and much more widely accessible. This suggests that information seekers increasingly want to get what they need quickly to save time, which is why search engines like Google are playing an essential role in modernizing information from print media to information on digital media.

Faced with the need for fast, accurate, and complete information, search engines like Google, which is a forum for information seekers, make improvements every year to offer the best experience to its users. On the other hand, digital-based information providers also compete to provide information by ranking first in search engines. This part is where opportunities for businesspeople start to appear where the popularity of a website can be a place to run digital ads to make money. The most striking thing about the arrival of the internet in the center of commerce and marketing is that the internet is not seen only as a new advertising channel or a new type among other types of traditional goods and services before the internet (Bhandari, R.S., & Bansal, A., 2018). On the contrary, this brings a turning point or a complete switch to a new business model that will make the digital marketing business faster and more prominent as a digital-based marketing option.

The website as a means in the Internet world for actors to pour various forms of data and information has had an infinite number to this day. As the number increased daily and different niche websites became available for different user needs, the competition began to emerge to get internet users to visit websites owned by different owners. The website content is also conducted on a search engine like Google, which is a means for internet users to find information.

The competition on search engines aims to take the first position in the search engine interface. This is done considering the tendency of internet users looking for more information to visit sites that appear only on the first page of search engines such as Google, Bing, Yandex, and others. This competitive problem presents the science of SEO (Search Engine Optimization) as a solution. SEO techniques are the methods used to make websites dominant in search engine results (Kumar, G., Jaiswal, V.K., Paul, R.K., 2019).

Search Engine Optimization plays a role in optimizing a website so that it has the best and most appropriate criteria for visitor satisfaction and conforms to search engine algorithms. By balancing these two elements, SEO can get a website ranked #1 (one) in search engines and provide great traffic for the website, which in turn brings more benefits.

The existing approach of SEO science is divided into two practices, namely On-Page SEO, which performs SEO optimization for website elements from the inside, such as Website appearance, website speed, content structure, content data structure, and internal linking. As for the second practice, Off Page SEO, there will be an optimization trend focused on elements outside the website. These elements are called backlinks, which can give websites reputation power to recommend better search engine rankings as a site for website contests.

This refers to search engines' purpose, gathering relevant and valuable information from any existing website intended to be served to internet users. In addition, search engines use their algorithms to customize all information from the website to ensure that it contains information that is not false and misleading website visitors.

It is also inseparable from the role of knowledge of the user interface and user experience, which are linked in the redesign of the Markas Gamers website. Remodeling a good website structure in terms of data mapping to the look and feel of the website makes it easier for visitors to interact with the existing navigation. Joo supports this statement by stating that the quality of UI/UX is based on the best experience for the visitor in understanding navigation, comfortable use, and understanding of information from a page, especially web pages (Joo, H.S., 2017). Applying UI/UX knowledge with SEO can also be seen in the optimization of the On-Page SEO method, which aims to optimize the website so that it is comfortable and useful for the visitor in the overall picture of the website because the Google algorithm is also based on the content and structure of a website. Web content exploration and site outline are two essential things in a website's appearance, both for visitor satisfaction and for Google to allow a website's content to rank better (Lemos, J.Y., & Joshi, A.R., 2017). With various media displayed on the site and various links available to direct visitors to the information they need, the site will get good value from visitors and Google.

With the aim of a search engine, SEO (Search Engine Optimization) is required to customize Markas Gamers' website to be user-friendly while meeting search engine algorithm criteria. In the future, the Markas Gamers website can improve its ranking in the search engines and generate an even greater flow of visitors.

II. LITERATURE REVIEW

A website is a text-related entity that extends over one or more connected browser windows, the connection of which is based on semantic, formal, and physical-performative links (Brügger, N., 2009). Meanwhile, the website is also an application containing multimedia pages (text, images, sound, animation, video) that uses a hypertext transmission protocol and accesses it with browser software (M. Arief, R., 2011).

The existence of a content management system facilitates the process of creating a website, managing various data and information on a website, distributing information on a website, and posting it on a website display for readers to view later. CMS's most common use lies in its function as a content manager on a website and other functions that make it easier to build and maintain a website (Fernandes, S. & Vidyasagar, A., 2015). For example, one of the leading CMS examples is WordPress, which was launched in 2003. WordPress alone powers about twenty-nine percent of all websites today (Cabot, J., 2018). WordPress is becoming more popular every day by providing easy content management as well as widgets and plugins that support website marketing.

A search engine is a tool that allows us to search for a website with the topics, criteria, and information we need (Halavais, A., 2017). With the rapid development of the amount of data and the development of a huge number of websites, search engines have become an important tool for searching various information on the World Wide Web.

Search Engine Optimization (SEO) is a process aimed at increasing traffic to a website and ranking in the Search Engine Results Pages (SERP) by improving the quality of a website using internal and external aspects of the website itself (Patil, V.M., & Patil, A.V., 2018).

SEO itself exists due to the tendency for an information seeker, without realizing it, to prefer sites that rank on the first page, ranking from one to ten, compared to sites that rank in the second, third, or even Google ad column. Hence, SEO services are needed by website owners as implementing SEO not only has great benefits compared to an advertisement but also has more affordable costs than advertising services with long-term results on the marketing side of a website.

There are two types of SEO, namely on-page SEO and off-page SEO. On-page SEO focuses on keyword usage and placement. Keywords included in the title, headline, description, body, and conclusion of a piece of content greatly determine how on-page SEO optimization can be done. Quality is also critical, considering the content we display on the website page must benefit the website visitors. (Dixit, A. and Agarwal, M., 2015). Coupled with the content of very complete content, it can help website content to be recommended to rank first in Google search engine. This is because the quality and complete content can be beneficial content and can be recommended by Google.

Off-page SEO is the optimization of a website by optimizing the process of elements outside the website. These elements are external links with other names, backlinks, inbound links, and referral links that give popularity to the website because it gets an external link as a referral for other websites to personal websites (Dixit, A. and Agarwal, M., 2015). The phenomenon of search engine algorithms like Google taking as a reference for a website is also widespread in the science of SEO (Search Engine Optimization) (Kavoura, A., Sakas, D.P., & Tomaras, P., 2017).

A sitemap is a map of a website. The data is on a page that details the structure of a website, from the main page, sub-pages, and categories to the content. The sitemap serves as navigation so that the identity of a website can be better recognized (Patil, V.M. and Patil, A.V., 2018).

Web Crawler is a programming entity that is automated to crawl a website's programming to find out the structure and pattern of the website. The structure of a website itself is a graphical structure represented by the website address for each page.

Any web page can be subdivided using a forward slash as a delimiter and a hierarchical website definition. Web crawlers can crawl from one website page to another using a graphical structure (Kumar, M., Bhatia, R., & Rattan, D., 2017), and the sitemap described earlier is like a "guide" for web crawlers on how to crawl pages, compiled into a map by the site owner.

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III. METHODOLOGY

This research uses various methods such as library research conducted through reading, studying, and gathering data and information suitable for sources from scholarly books, journals, and other sources with the best source accuracy. Observation of the systems and work techniques used in the company concerned. The results are intended to understand in detail the concepts and techniques of SEO work at P.T. Black and White SEO. Observation is a data collection method that uses direct or indirect observation. From the expert's explanation, the researcher used the participant observation method. The researcher made direct observations and actively participated in the project development as a search engine optimizer. Participatory observation is where the observer participates in various activities, interacts, participates in events, and learns the culture of the object or subject under study. The next method, the interview process, is conducted with a direct question and answer or face-to-face to get accurate and precise information. Another method is analyzing data such as website traffic, website visitor behavior, and keyword analysis using Ahrefs to analyze keyword optimization results on content in the SERPs.

IV. RESULTS AND DISCUSSION

In this study, the researchers wanted to find out how effective the use of search engine optimization on the Markas Gamers' website was in significantly increasing the flow of visitors to the website. Prior to appearance changes as well as the implementation of SEO, the following data is generated by Markas Gamers website.
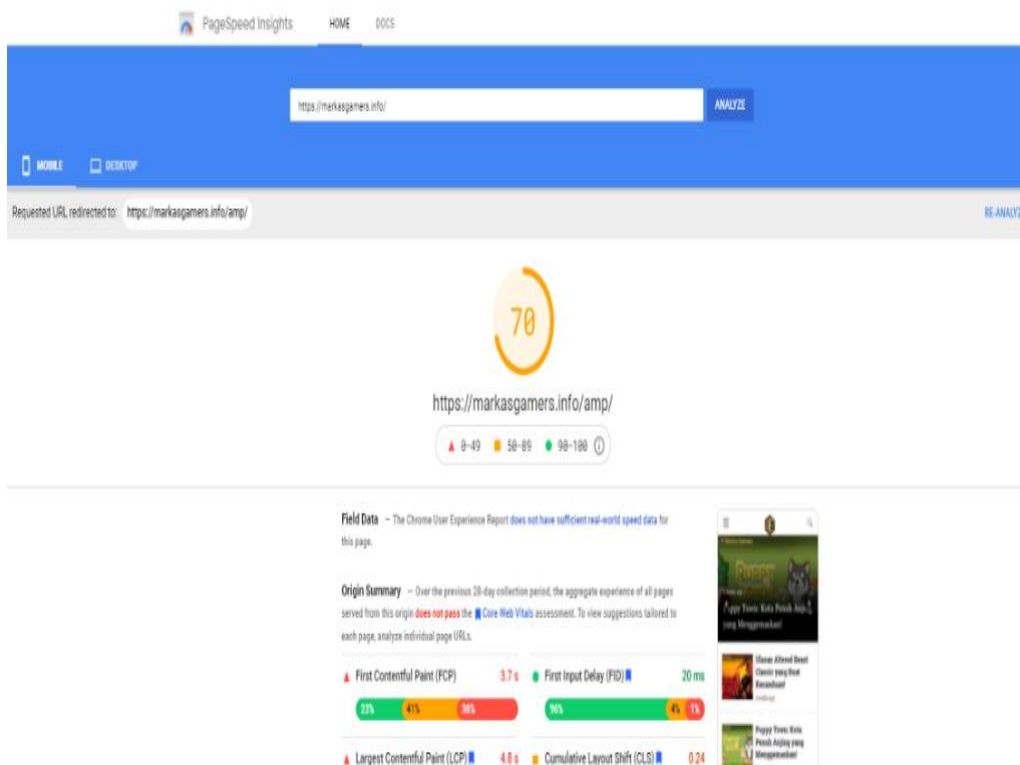

Figure 1. Show value results before SEO (Source: PageSpeed Insight)

The appearance of a website with many elements like sidebars, popups, content sections, and others can affect the loading performance of a website. The more elements that appear on the home page, the more lines of code must be processed at the back of the website and sent through the server before they reach the visitor's device. This impact displays take a long time to appear on visitors' devices, making visitors lazy to wait.

![APPS Publications]

JOURNAL OF MULTIDISCIPLINARY ISSUES
Journal Website: www.jmis.site
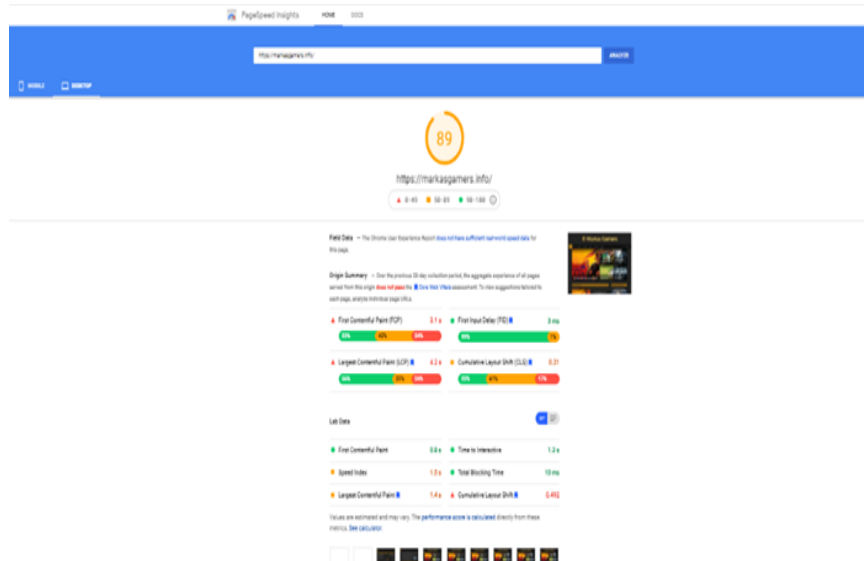J. Multidisc. Issues 2(1) 27 - 36 (2022)

Figure 2. Show value results after SEO (Source: PageSpeed Insight)

After reducing some non-essential elements on Markas Gamers' homepage, there is an increase in the feasibility score of loading speed and the percentage of homepage elements on a Google tool called PageSpeed Insights.

Internal Link Structure

On the Markas Gamers website, internal links are marked with a word or phrase in gold. These hyperlinks may contain links leading to other related articles as supplementary information. They may increase traffic or outbound links as an indicator that the article summarizes information based on data from other trusted websites (Google, Wikipedia, and others). The distribution of internal links may be varied by embedding them in the content, creating an "Also Read" section, and other ways that naturally complement the information provided. The number of internal backlinks refers to the word count of an article. Suppose the internal link count is 20 (twenty), but the word count of an article is only 500 (five hundred). In that case, it can be classified as over-optimized or as an article optimized for SEO needs but excessive and unnatural. So, this affects the ranking of an article on the site itself. The internal link structure can be seen in Figure 3.
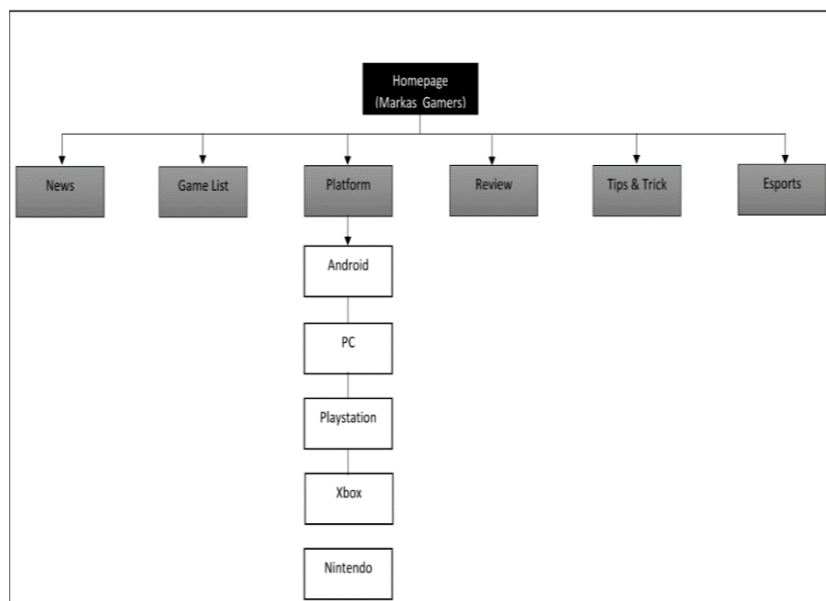

Figure 3. The internal link structure of Markas Gamers

The internal structure of the Markas Gamers link can be seen in the main menu on the site's home page. This structure separates articles into categories so that the information series can relate to the main topic. Aside from the fact that the information stored by Markas Gamers is more precise because of this grouping, visitors who want to find related information can easily find it. The next good page comes when a search engine crawler crawls a website to assess a website's data structure and information. With a neat and structured build, it will be a more profound point to direct crawlers to various vital pieces of information that website developers want to show and appear in Google SERP results.

Implementation of Backlink

A backlink is a link that provides feedback to a website in an attempt to provide referrals or link juice to a website. Backlinks are obtained naturally from other websites citing information from our website or creating a backlink on a website that provides a place to set the link. Google does not recommend creating backlinks as it is a form of link juice manipulation. However, this can be done in a way that looks natural and does not degrade the quality of the Markas Gamers website. There are different types of backlinks used by Markas Gamers to improve website metrics like profile links, contextual, and others.

Social Media

As one of the largest social media platforms, Instagram is a promising source of referral traffic. Markas Gamers website branding can also be done on Instagram to give readers, and website visitors confidence that the information provided is always the latest and greatest. Columns containing website addresses on Instagram profiles can also be a source of quality backlink profile links as they come from leading social media platforms. The Instagram of Markas Gamers can be seen in Figure 4.
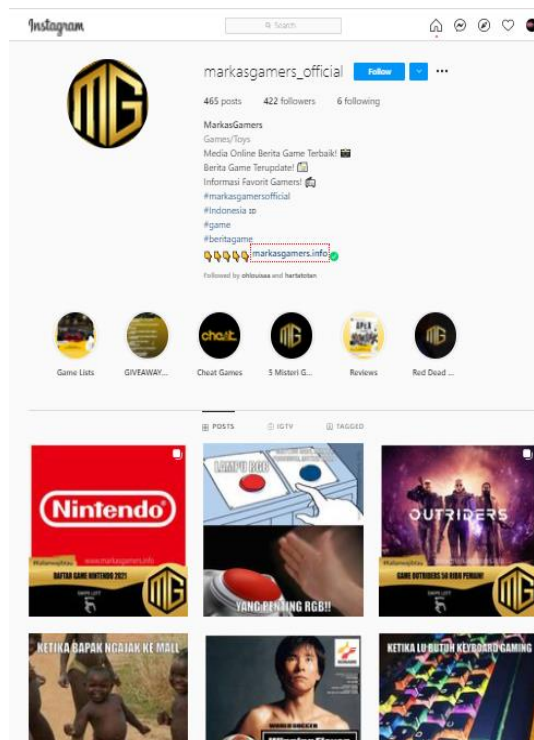

Figure 4. Markas Gamers Instagram

Social Media Facebook has groups and forums which can be a place to attract website visitors with the same interests by visiting different groups that share game information; Markas Gamers can include website addresses in posts in the group members of the group can visit. Markas Gamers has also created a group for loyal Markas Gamers readers to get the latest information every day by receiving notifications from Facebook and visiting articles whose article addresses have been pinned to posts in the Markas Gamers Facebook group (Figure 5).
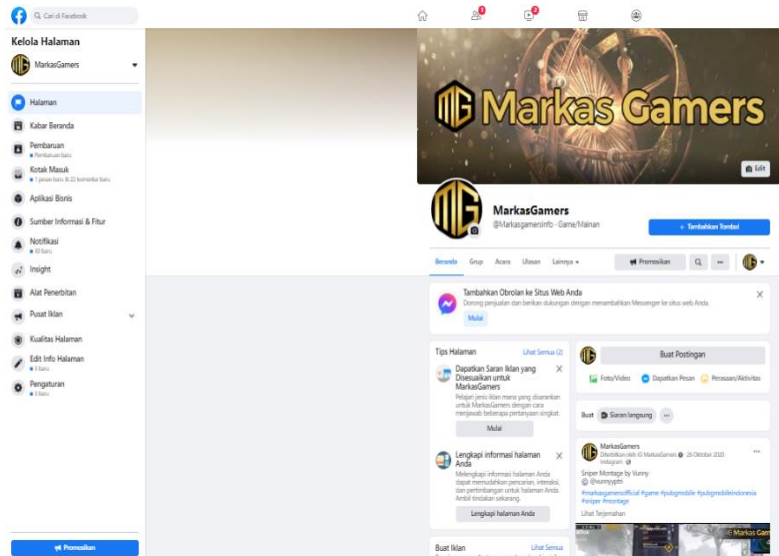
Figure 5. Markas Gamers Facebook

News Portal

Kompasiana is a website for authors of articles on the Kompas website (Figure 6), authors at kompasiana can come from different circles who are allowed to create and upload news anytime and anywhere. By creating articles about interesting game information on kompasiana, they can create articles from the Markas Gamers that enter the hot topic category and attract more readers. Furthermore, by embedding an outbound link so readers of articles on kompasiana can get more information about games on the Markas Gamers website.
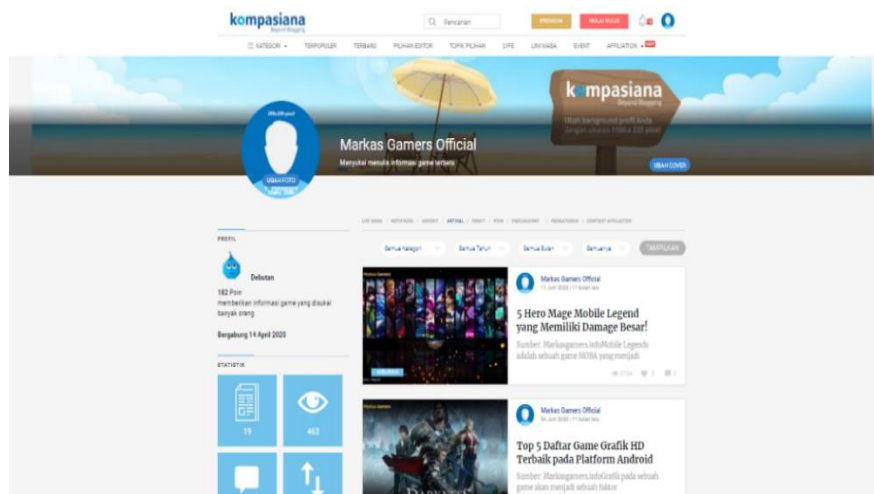

Figure 6. Markas Gamers Kompasiana

Unlike kompasiana, Kaskus is a long-time popular online forum (Figure 7). The system created for article authors is the same as kompasiana; authors in the Kaskus forum can come from different circles and write articles on any topic except gambling and pornography. For selected articles with exciting information, Kaskus submits the article to the "Hot Threads" category to allow the article to be shown to even more readers while at the same time branding Markas Gamers on each article created, which allows Kaskus to attract traffic into Markas Gamers traffic for an article that reached the hot thread.
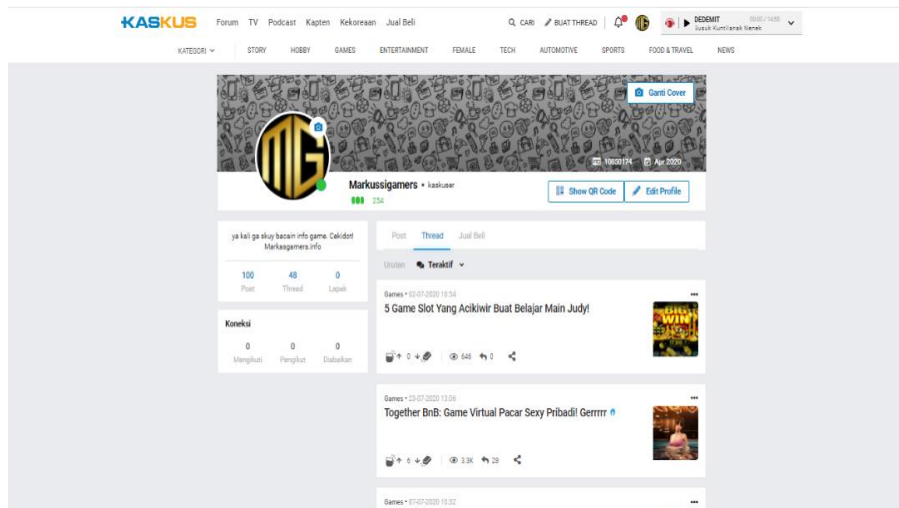
Figure 7. Markas Gamers Kaskus

Visitor Change Results

Number the tables sequentially, according to their appearance in the text. Place footnotes to the tables below the body of the tables and make the captions in superior small letters. Avoid using vertical rulers. Be careful when using the tables, and once again, ensure that the data given in the table do not duplicate the results described in the article.

Tables

Figure 8 shows a statistical chart of Markas Gamers' website visitors from January to April 2020. The following is the data displayed by the visitor statistics:
- Users: 2,100
- New user: 2,100
- Session: 3,043
- Number of sessions per user: 1.45
- Page Views: 5,502
- Pages/session: 1.81
- Average session duration: 00:02:42
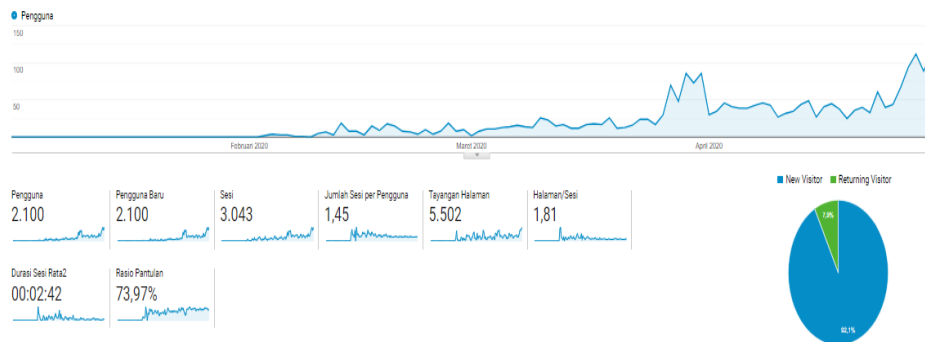- Bounce Rate: 73.97%

Figure 8. Markas Gamers Visitors in January – April 2020

Figure 9 shows a statistical chart of Markas Gamers' website visitors from May 2020 to April 2021. The following is the data shown in the visitor statistics:
- User: 174,803
- New user: 175,716
- Session: 199,297
- Number of sessions per user: 1.14

• Page Views: 245,594
• Pages/Session: 1.23
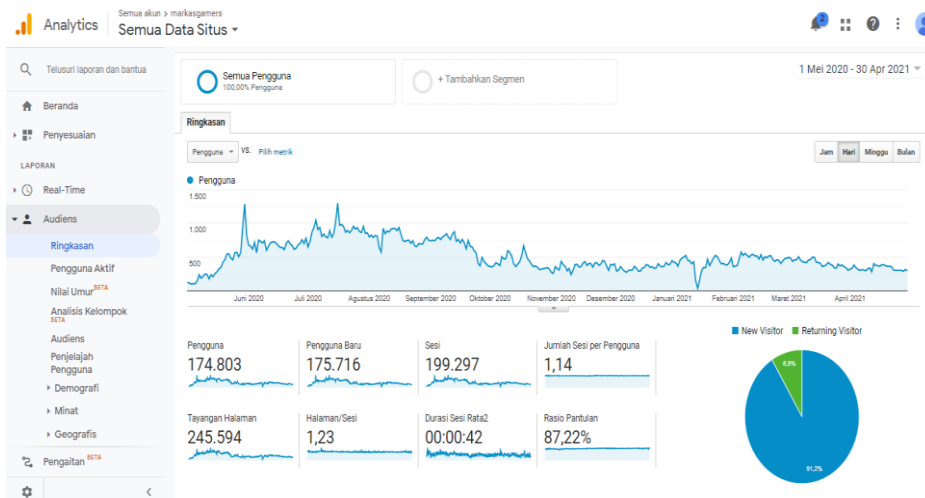• Average session duration: 00:00:42
• Bounce Rate: 87.22%

Figure 9. Markas Gamers Visitors in May 2020 – April 2021

Testing Markas Gamers website hypothesis before implementing SEO (January 2020-April 2020) and after implementing Markas Gamers website SEO (May 2020-April 2021)

Two Means Statistics Hypothesis:

H0: $\mu = \mu_0$
H1: $\mu > 0$

H0 represents the number of visitors to the Markas Gamers website before the redesign and SEO implementation, and H1 represents the number of visitors after the redesign and SEO implementation.

H0: $\mu = 2100 : 4 = 525$
H1: $\mu = 174.803 : 12 = 14{,}566.9$

Based on the above calculation results H1=14566.9 > H0=525, it can be stated that the average total number of visitors to Markas Gamers website per month after the implementation of redesign and SEO experienced a significant increase and more total visitors than the sample before the implementation of redesign and SEO.

V. CONCLUSION

In this concluding section, the author can summarize some things gleaned from the application of SEO on Markas Gamers' website. When we first started building the Markas Gamers website, a few things were not appropriately optimized, starting with the look and feel of the website to the implementation of SEO, which was not applied. This affects both the results of the Markas Gamers website in terms of rank on search engine SERPs such as Google so that it does not get the traffic it wants, as well as the unfriendly appearance of the website and the loading speed for visitors. The following conclusions can be drawn from the implementation of SEO (Search Engine Optimization) on the Markas Gamers website for the problems described:
• The redesign implementation on the Markas Gamers website has been shown to increase the website's loading speed and the score on Google Speed Insights for the Markas Gamers website.
• Markas Gamers website traffic can reach an average of 10,000 (ten thousand) visitors every month after implementing Search Engine Optimization on Markas Gamers' website.

• The implementation of SEO on Markas Gamers website has significantly increased the number of website visits from February 2020 to April 2020 before implementation with an average visit of 525/month and from May 2020 to April 2021 after implementation with an average Visited of 14,566/month.

• Implementing SEO on Markas Gamers' website has significantly increased the site's article rank and maintained first place in search engine results for several articles destined for long-term SEO optimization applications.

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