An Analysis of Web Traffic and User Behavior Using Google Analytics in Order to Improve Website Performance: A Case for Rainbow Province Creatives Private Limited

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Abstract- This research is an experimental research in which data was collected from a WordPress site for Rainbow Province Creatives Private Limited. The general aim of the research was to gather data on the performance of the site and make recommendations on whether the site can now be monetized or there are some issues that need to be addressed before monetization of the Magazine that the company produces. Rainbow Province Creatives Private Limited produces a magazine centered on the creative industry once every three months. The company was established in 2022 and has just managed to publish their fifth issue this month. They now want to understand the performance of their online magazine so that they can monetize it if necessary. Form the data collected both from Google Analytics and Monster Insights plugin, trends show that in the past month there were 58 new users and 35 regular users. The average number of users per day is less than two and the average engagement per each session is 1.6 minutes. Most of the visitors on the site are in Zimbabwe and South Africa. The largest number of users are coming direct to the site, meaning they will be knowing the domain name of the site. This is followed by organic and then social media. The number of referrals on the site is still insignificant. The home page and the issues page are viewed the most and all the other pages have very little traffic. In terms of time, most people spend their time on the home and very little time on other pages. Out of the 58 new users in the month only 11 returned back to the site. That translates to 18.9% of the total users in the month. Thus in summary, the number of users, the engagement time and retention rate are still low though there is evidence of improvement from the beginning of the research period to the end. As recommendations there is need to focus more driving traffic to the magazine since it is still in its infant stage. More and aggressive social media marketing should be planned and executed. There is also need to lure more prominent online influencers to make the new magazine known to many people. There is also need for search engine optimization for the whole website. Monetization may need to be delayed further until there will be reasonable increase in the amount of traffic.

Index Terms- Google Analytics, Monster Insights, web traffic, website performance.

I. INTRODUCTION

Google Analytics is a handy tool designed by Google to help businesses that market their product and services online [1]. It provides statistics and insights about the performance of any website. It can provide both basic statistics and custom data as per the needs of administrators of different websites. The data analysis that it does help online businesses to make quick decisions based on that data. Examples of data that one may gather through the use of Google Analytics include pages being viewed the most, user retention, average user engagement and even monetization data [2]. This implies that if an individual or an organization has an online business, it is quite important to know how to create Google Analytics accounts and to configure websites to allow Google Analytics to collect data from the business and to process it. This will help the organization or individual in making informed decisions each time important decisions must be made about the business.

The goal of this research is to analyze and interpret data collected from Rainbow Province Creatives Private Limited to enable the directors of the online magazine to make monetization related decisions based on the results of this research. The domain name of the organization is https://creativesmagazine.co.zw/.

II. STEPS TAKEN IN THE RESEARCH

A Google Analytics account was created by the researcher. From there the website for Rainbow Province Creatives Private Limited was then configured with tracking codes. The site was then left for a month for Google Analytics to collect enough data about the site. From there data was then collected and analyzed. Decisions were then made after data analysis.

III.   RESEARCH FINDINGS

a.   Number of visitors per day in the last 14 days

From the graph below, indicators are that the previous 7 days the website had an average of 1.751 visitors per day. That was a slight improvement from the previous week which had an average of 1.428 visitors per day.

Statistical summary indicates that in the week there 16 new users to the site and that was recorded as a 33.35% when compared to the new user that were found the previous week. The average time each user would spend on the website was one minute 5 seconds. That time was also recorded as a 54% increase from the time that users used to spend in the previous week. Thus both number of visitors and the time spent by each visitor had improved. There were no conversions for that period of time.

At the time that I logged into Google Analytics, there were two users who were using the site. One of the users was me and the other user was in Malawi.
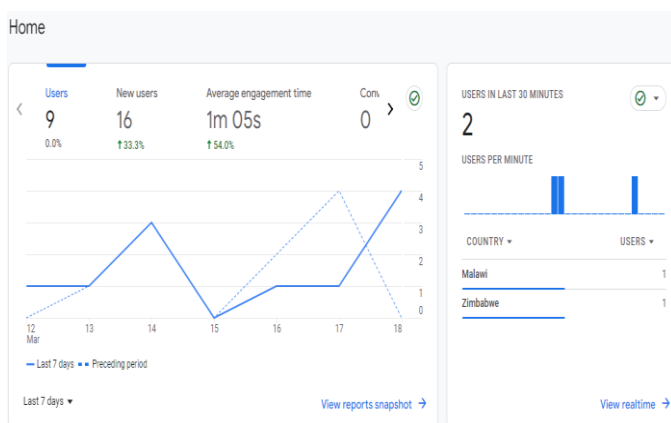

Figure 1. Number of visitors per day in the last 14 days

b.   Users by Country for the past 7 days

Of all the users in the previous week, 6 were from Zimbabwe, 2 were from South Africa and 1 was from Sweden. Thus most users on the site were Zimbabweans. This is shown in the graph below.
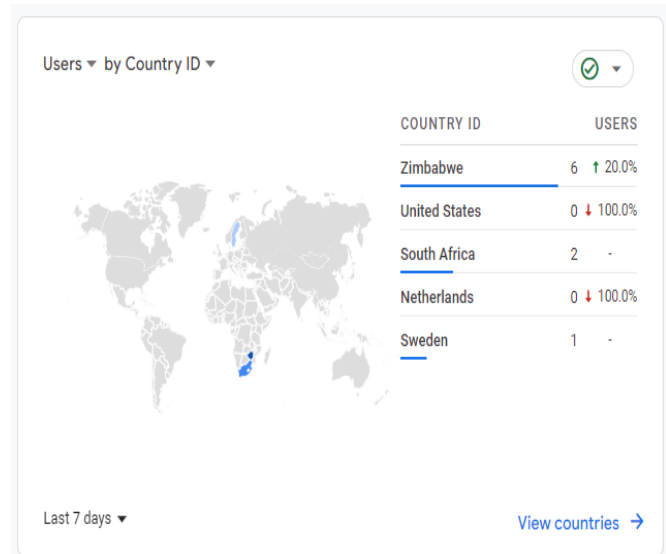

Figure 2. Users by country for the past 7 days

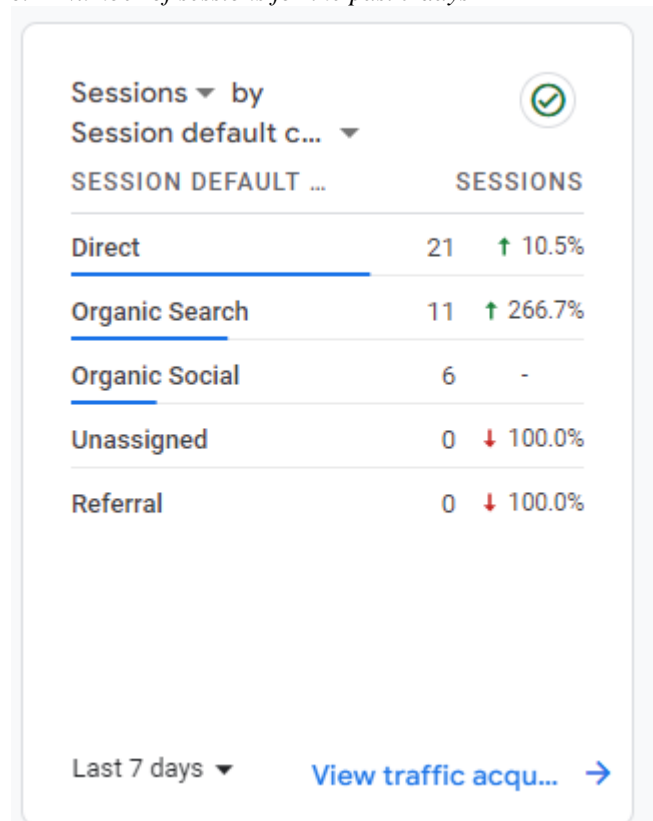### c.   Number of sessions for the past 7 days

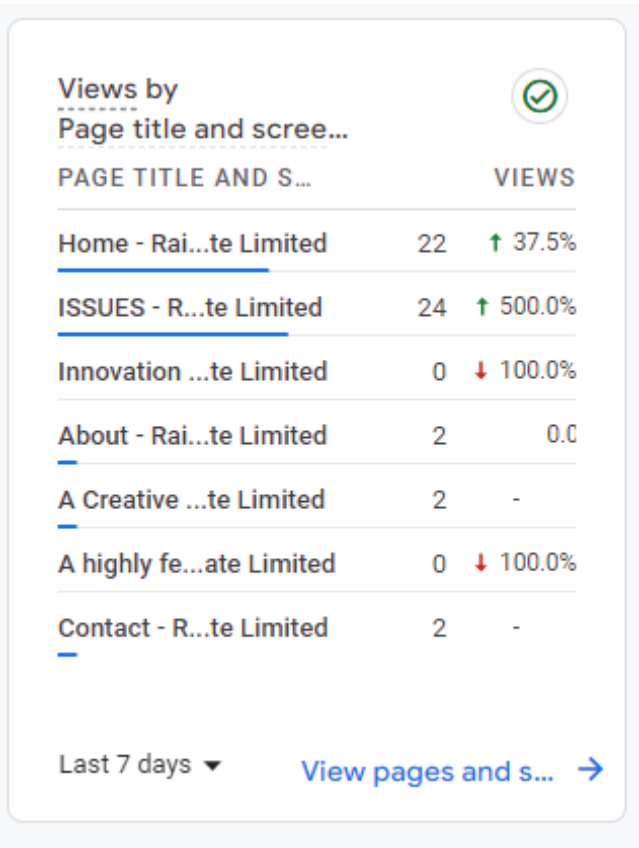**Figure 3. Number of sessions for the past 7 days**

From the diagram above, there were 21 direct sessions in the week and that was recorded as 10.5 increase in the number of direct sessions from the previous week. Organic search had 11 sessions and that was considered as 266.7% increase in the number of organic searches when compared with those of the previous week. Visitors who came from the social platforms

were 6. There is no comparison with visitors who came from social platforms in the previous week. There were no referrals and no unassigned visitors.

*d.   d. Page views in the past Seven days*
e.
The home page had 22 views and that was a 37.5% improvement from the previous week. The most viewed page was the issues page which had 24 views. The record was considered to be a 500% increase when compared to views of the issues page in the previous week. The About Us and the Contact Us page had 2 views each. There was also one article that had two views. Thus in summary, page views improved from the previous week.
*f.*

Figure 4. Page views for the past 7 days

e. *Total event count in the week*
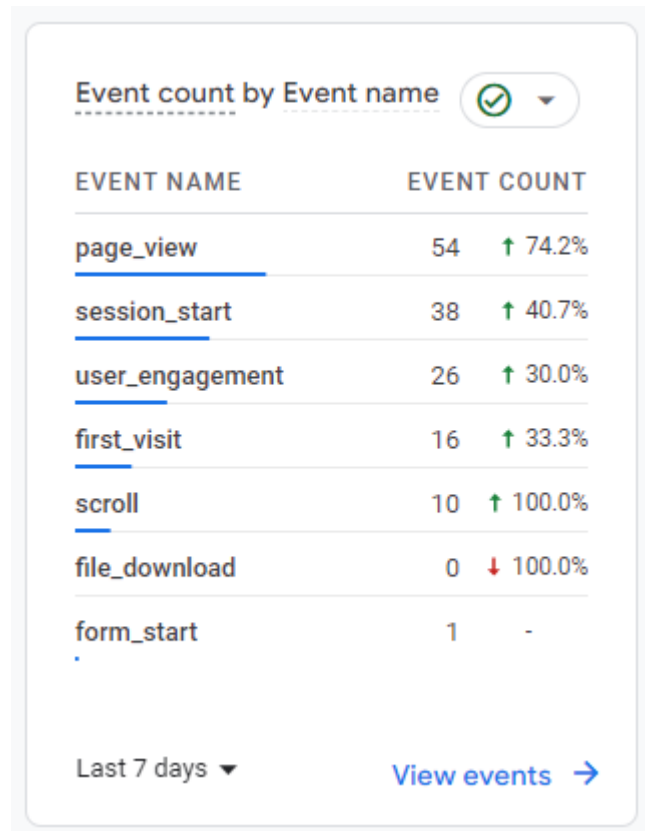
Figure 5. Total event count in a week
There were 54 page views in the week. That was a 74% increase in the number of views when compared to the views of the previous week. Session starts were 38. That was also a 40.7% increase from the previous week. There 26 user engagements and that number was considered 30% increase from the previous week. There were 16 first time visitors and that figure was considered to be a 33.3% increase when compared to the visitors of the previous week. Scrolls were 10 and that was a 100% increase from the previous week. Only one person engaged himself or herself with the subscription form. Thus generally there was an increase in the amount of events taking place on the site in the past week when compared to what was happening the previous week.

f.   Sources of New users on the site
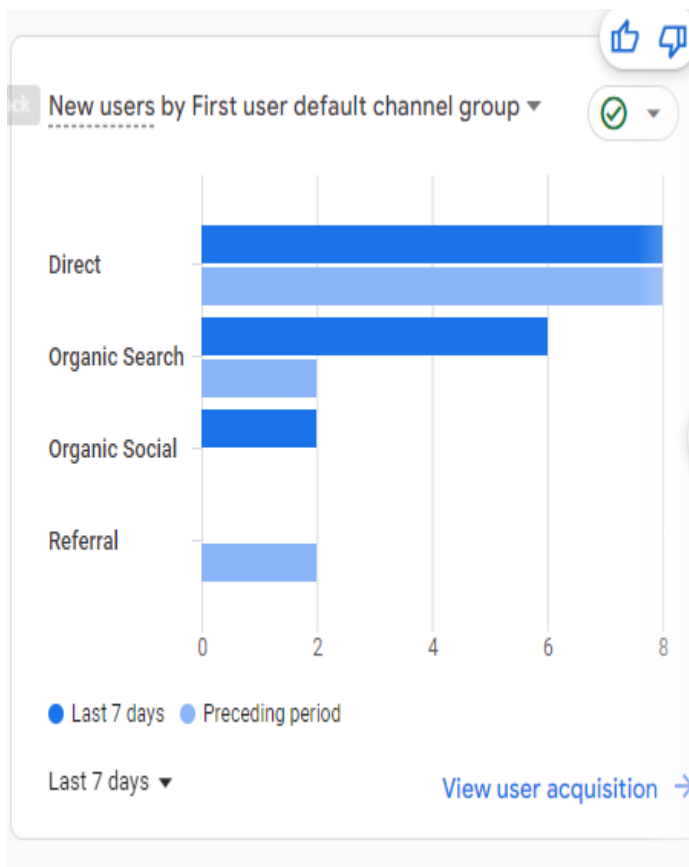
Figure 6. Sources of new users in a week

Most new users are direct visitors as shown in the graph above. Organic search comes second with 6 users and then followed by social media which brought 2 visitors to the site. The preceding week had seen poor performance of organic search and good performance of referrals. Generally, thus sources of new users did not vary much from the previous week into the new week under study.

g. *Demographic Details Over time*

Users by country

Most users are from Zimbabwe, followed by United States and then South Africa. The other countries that have few viewers are Ireland and Netherlands. This is shown in the diagram below. Thus for most of the time this site finds most of its users from Zimbabwe.
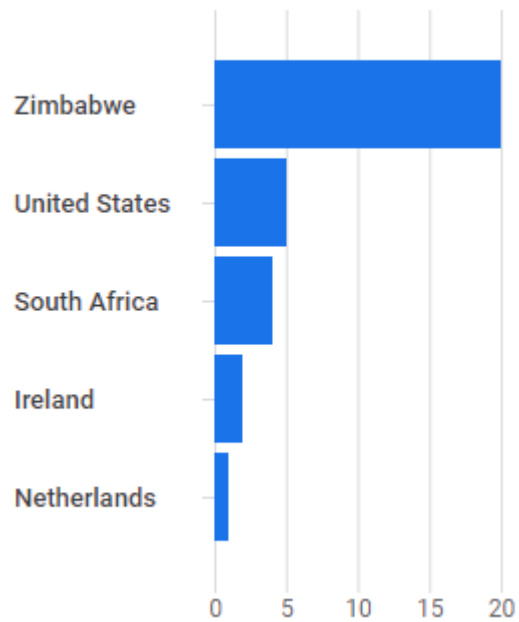
Figure 7. Users by country over time

h. *Breakdown of users by country over time*

For the period under study, the detailed breakdown of users is as shown in the graph below. Regular users were 35 and new users were 38. It shows that the most regular users and new users are Zimbabweans followed by America and then South Africa. Other countries that had visitors are Netherlands, Ireland, Nigeria, Sri Lanka and Sweden.

Country ▾ +	↓ Users	New users
	35 100% of total	**58** 100% of total
1 Zimbabwe	20	34
2 United States	5	6
3 South Africa	4	8
4 Ireland	2	2
5 Netherlands	1	2
6 Nigeria	1	2
7 Sri Lanka	1	2
8 Sweden	1	2

Figure 8. Breakdown of users by country over time

Search…   Rows per page: 10 ▾

Country ▾ +	Engaged sessions	Engagement rate	Engaged sessions per user	Average engagement time
	56 100% of total	**49.56%** Avg 0%	**1.60** Avg 0%	**2m 08s** Avg 0%
1 Zimbabwe	41	56.16%	2.05	3m 04s
2 United States	0	0%	0.00	0m 05s
3 South Africa	11	55%	2.75	2m 38s
4 Ireland	0	0%	0.00	0m 03s
5 Netherlands	1	100%	1.00	0m 38s
6 Nigeria	0	0%	0.00	0m 00s
7 Sri Lanka	2	100%	2.00	2m 05s
8 Sweden	1	50%	1.00	0m 00s

Figure 9. Engagement analysis

i.   Engagement analysis

As shown in the able below, there were 56 engagement sessions and the engagement rate was 49.56% the average user is engaged 1.6 minutes per each session and the average engagement time is 2 minutes 8 seconds. From that summary, it can be noted that Zimbabweans have the greatest engagement, from engaged sessions to engagement rate to engaged sessions per user to average engagement time. After that those in South African come second. User engagement for Americans is 0%. So is the same with user in Ireland and Nigeria. Thus in summary the site is being used by people in Zimbabwe and South Africa.

IV.   CONCLUSION

From the data collected and analyzed, it has been noted that web traffic is growing over time but it has not reached a point where monetization of the magazine can be implemented. Average number of viewers per day is less than 2. Total new users per month were 58. Regular monthly users were 35. Retention is still low. Of the 58 users, only 11 returned back to the site for the send time. That will translate to 11% of the month's users. Average engagement time for each user was 1.6 minutes. If the journal is monetized as of now, the number of users is likely to decrease, making it have even fewer users. Rather, there is need to focus more on driving traffic to the site. Various methods need to be implemented for users to increase first, then monetization will come when the site acquires many regular users. There is also need for search engine optimization. That will make the magazine site rank well and hence reach more people.

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