

## WEBOMETRIC ANALYSIS OF NIGERIAN NEWSPAPERS WEBSITES

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### Abstract

A Newspaper is a reservoir of knowledge. Newspapers are shifting from print to online in Nigeria. This study was carried out to conduct webometric analysis of Newspaper websites in Nigeria. This is done to determine the web impact assessment of these websites. This study was carried out by using Alexa Internet a subsidiary company of Amazon.com which provides web traffic data. The 17 leading Nigerian Newspaper websites were taken for evaluation in this study. The data gathered based on eight (8) indices-traffic rank in Nigerian and global, pages viewed, downloading speed, links, bounce percentage, time on site, search percentage, and Nigerian/foreign users were collected. Data were analyzed using SPSS package. The results of the study reveal that Vanguard and The Punch has the highest traffic rank in Nigeria as well as global. Naij.com received the highest number of links with 16,615. The Guardian has the fastest downloading speed. The maximum number of Nigerian users is 87.6% for PM News. The Punch has the highest number of average pages viewed by users per day (3.04). The highest expected daily time spent on site visitors go to the New Telegraph (12:28) and closely followed by Daily Times 12:21. A disturbing trend is the result of some high traffic ranking newspaper showing weak performance in some of the attributes while some low traffic ranking newspapers performed comparatively better in some of the attributes. Therefore the study recommends to all administrators of Nigeria newspapers websites to do the overhauling of their websites so as attract more visitors.

**Keywords:** Webometric, Nigerian Newspaper websites, Alexa Internet, Alexa indices

### 1. INTRODUCTION

General knowledge is an essential part of education anywhere in the world. Newspaper is a store house of general knowledge. We can know very interesting things by reading a newspaper. The reading of newspaper is very useful for people to develop their language ability and knowledge of the world. Newspaper can give us a clear idea of the current events of the country and the world. The newspaper also brings out the plans and policies of the corporations and the government. Newspaper is used for advertisements concerning business, trade and industry. Job seekers frequently contact newspapers for recent job available. Print newspaper is popular in all household.

In the last few years, there is a gradual shift from print newspaper to online newspaper, as people are spending a lot of time on the internet, in almost every corner of the earth. As a

result, print newspapers have started to suffer at least in United State of America (USA) and to some extent in Europe (Hassan & Ahmed, 2012). Now, in the U.S.A, the newspaper industry is going through a tough time. More and more people are now using internet to get news and information. So, there is a new trend in journalism and it is called Online Journalism. Online Journalism is now gaining a lot of ground in Nigeria. Many print newspapers owners have switched to online newspapers, with regularly updating websites. Globalization and digitalization have made a remarkable impact on journalism and internet is the constant source of energy for the newspapers to make its news available globally. Most people now access information online through their mobile phones. News is now at fingertips of newspaper readers more than before. Therefore, the primary goal of a newspaper website is to provide useful information to its readers in real time. In order to achieve the goal, there is a need for each newspaper to have a vibrant websites, in order to perform well and stay in the competition among numerous online newspapers. The webometric analysis of Nigerian newspapers websites will help to determine web impact assessment and level of acceptance of this paradigm shift in journalism.

The science of webometrics tries to measure the World Wide Web to get knowledge about the number and types of hyperlinks, its structure and usage patterns. According to Bjorneborn and Ingwersen (2004), the definition of webometrics is "the study of the quantitative aspects of the construction and use of information resources, structures and technologies on the web drawing on bibliometric and informetric approaches." The term webometrics was first coined by Almind and Ingwersen (1997). Thelwall (2009), who is a leading figure in the field, defined the term Webometrics as "the study of web-based content with primarily quantitative methods for social science research goals using techniques that are not specific to one field of study". Webometrics is concerned with measuring aspects of the web: web sites, web pages, and parts of web pages, words in web pages, hyperlinks, and web search engine results. The present study is aimed to evaluate the Nigeria newspaper websites using Alexa Internet. Alexa is one of the most widely used tools for evaluation of websites. It was the tool used in many previous webometrics studies (Nahem, 2016; Nahem & Saraswati, 2017, Jowkar & Didegah ,2010; Bhat, 2013; Kanellopoulos & Kotsiantis,2012). The Alexa ranking system has been utilized by a number of scholars in the existing literature in a wide variety of areas, including transforming Web pages to become standards-compliant (Chen & Shen 2006), segmenting Web pages for mobile devices (Hattori et al. 2007), measuring privacy loss and protection (Kr-ishnamurthy et al. 2007), testing the reliability of the Domain Name System (Ramasubramanian and Sirer 2004).

Nahem (2016) reported that Alexa Internet began in April 1, 1996 by American web entrepreneurs Brewster Kahle and Bruce Gilliat and that presently it is a San Francisco, California, United States-based subsidiary company of Amazon.com which provides commercial web traffic data. The statistics are obtained by users downloading a toolbar for their browser, which sends data such as the URL accessed and the amount of time spent on a page to Alexa, where it is then processed to obtain rankings for individual websites. One reason why Alexa is a useful source for ranking websites is that its data is freely available, both in terms of ease of access and cost. The list of the top 500 sites globally is available on the Alexa site without registration or a fee, as are lists of the top 100 sites for each country and language. Alexa has the following websites attributes:

traffic rank, pages viewed, speed, links, bounce percentage, time on site, search percentage and local and foreign users. Alexa Internet (2017) offers the following explanation on each of the attribute.

- **Traffic rank:** It is an estimate of popularity in a specific country. Alexa computes web sites traffic by analyzing the web usage of millions of Alexa toolbar users and data obtained from other diverse traffic data sources. The traffic is based on three months of aggregated historical traffic data and is a combined measure of pages viewed and users (reach). The lowest number indicates best traffic rank.
- **Daily page views per visitor:** It is an estimated percentage of global page views. Page views measure the number of pages viewed by site visitors. Multiple page views of the same page made by the same user on the same day are counted only once. The page views per user numbers are the average numbers of unique pages viewed per user per day by the visitors to the site. The three-month change is determined by comparing a site's current page view numbers with those from pages viewed three months ago, which reflects the average number of pages viewed by users in a certain web site. Page views/user is the estimate of daily unique page views per user.
- **Speed:** It is the measure of average load time. Web pages downloading speed that reflects the average time for opening pages of a certain web site.
- **Links:** It is a measure of reputation and web impact, which includes a number of web sites connected to a certain web site which shows its popularity.
- **Bounce percentage:** It calculates percentage of visits that consist of a single page view.
- **Time on site:** It measures daily time on site (mm:ss).
- **Search percentage:** It evaluates percentage of visits that came from a search engine.
- **Users' percentage:** It is the percentage of people who visit a website (local and foreign).

## 2. OBJECTIVES

The objective of this study is to conduct webometric analysis of Nigerian Newspaper websites based on the following Alexa indexes: traffic rank, pages viewed, time on site, speed, links, bounce percentage, search percentage, Nigerian and foreign users.

## 3. LITERATURE REVIEW

Most of earlier researches on webometrics have always on the university websites. Adekannbi (2011) carried out a comparative study between African and World Universities on web link analysis data which were extracted using the AltaVista search engine. Nwagwu & Agarin (2008) examined links and web impact analyses of Nigerian universities' websites. There are a number of studies that have carried out webometric studies on different newspapers. The researcher has attempted to review studies that used Alexa Internet as tool for webometric analysis of newspaper websites which is the focal point of this study. Bhat (2013) evaluated the websites of 26 Indian Newspapers using Alexa databank. Nahem (2016) evaluated 13 Malayalm newspaper websites from Kerala.

Each newspaper website was searched by the researcher in Alexa databank and relevant data including traffic rank, pages viewed, speed, links, bounce percentage, time on site, search percentage, and Indian/foreign users were collected. Further these data were tabulated and analyzed. The results of this study show that Malayala Manorama has the highest traffic rank in India as well as global. Siraj has the highest number of average pages viewed per day and estimated daily time spent on site by the visitors. The fastest downloading speed is for Madhyamam. Malayala Manorama has the highest number of links. Most of the foreign users to Malayalam newspapers come from the Gulf countries like Qatar, UAE, Saudi Arabia and Kuwait.

Nahem and Saraswati (2017) also carried out webometric analysis on 8 leading Telugu newspaper websites from the state of Andhra Pradesh. The results of this study shows that, the websites of the newspaper Eenadu did remarkable performances in most of the attributes like highest traffic rank in both local & global, daily time spent on site by the visitors, number of links and the highest number of foreign users. Sakshi has the highest number of average pages viewed per day and lowest bounce percentage. The fastest downloading speed is for Andhra Prabha. The highest percentage of visits that came from search engines is for Visalaandhra. However, this study will present webometric analysis of Nigeria newspaper websites, which is yet to have documented article in the public domain.

#### 4. METHODOLOGY

The webometric analysis of the Nigerian newspaper was carried out with the help of Alexa Internet, which is known as the most famous tool for evaluating websites. The researcher selected eight indexes (traffic rank in Nigerian and global, pages viewed, speed, links, bounce percentage, time on site, search percentage, and Nigerian and foreign users).

The 17 leading Nigerian newspapers websites listed in the website of the Online newspaper and Nigeria finder ([www.onlinenewspaper.com](http://www.onlinenewspaper.com) & [www.nigerianfinder.com](http://www.nigerianfinder.com)) as at November 27, 2017 were taken as samples for evaluation in the present study. The internet addresses (URLs) of these newspapers were collected from the internet using Google ([www.google.com](http://www.google.com)). After that each newspaper website was searched on 30th November, 2017 in Alexa website ([www.alexa.com](http://www.alexa.com)) and all the data were obtained by real-time examination according to evaluation indexes. The data collection process was done on the same day to minimize possible errors associated with frequent website updates as it is expected of a newspaper websites. The data were further entered into the SPSS package. Then data were analyzed by using descriptive statistics and relevant findings were tabulated in accordance with the set objectives. The list of the Newspapers with their URLs is given in Table 1.

**Table 1: List of Newspaper in Nigeria**

S/N	Name of the newspaper	URL
1	Vanguard	<a href="http://www.vanguardngr.com">www.vanguardngr.com</a>
2	The Punch	<a href="http://www.punchng.com">www.punchng.com</a>
3	The Nation	<a href="http://www.thenationonlineng.net">www.thenationonlineng.net</a>

4	Sahara Reporters	<a href="http://www.saharareporters.com">www.saharareporters.com</a>
5	This Day	<a href="http://www.thisdaylive.com">www.thisdaylive.com</a>
6	The Guardian	<a href="http://www.guardian.ng">www.guardian.ng</a>
7	Premium Times	<a href="http://www.premiumtimesng.com">www.premiumtimesng.com</a>
8.	The Sun	<a href="http://www.sunnewsonline.com">www.sunnewsonline.com</a>
9.	Daily Trust	<a href="http://www.dailytrust.com.ng">www.dailytrust.com.ng</a>
10.	Nigerian Tribune	<a href="http://www.tribuneonlineng.com">www.tribuneonlineng.com</a>
11.	PM News	<a href="http://www.pmnewsnigeria.com">www.pmnewsnigeria.com</a>
12.	Leadership Nigeria	<a href="http://www.leadership.ng">www.leadership.ng</a>
13.	Naij.com	<a href="http://www.naij.com">www.naij.com</a>
14.	Daily Times	<a href="http://www.dailytimes.ng">www.dailytimes.ng</a>
15.	Channels Television	<a href="http://www.channelstv.com">www.channelstv.com</a>
16.	Nigeria World	<a href="http://www.nigeriaworld.com">www.nigeriaworld.com</a>
17.	New Telegraph	<a href="http://www.newtelegraphonline.com">www.newtelegraphonline.com</a>

## 5. RESULTS AND DISCUSSION

The data regarding 17 newspaper web sites for eight indexes (traffic rank, pages viewed, speed, links, bounce percentage, time on site, search percentage, and Nigerian/foreign users) as obtained from Alexa Internet is presented in Table 2.

**Table 2: Data gathered from Alexa Internet**

S/N	Name of the Newspaper	Links	Pages viewed	Speed (seconds)	Bounce (%)	Time on site	Search (%)	Traffic rank		Users percentage	
								Nigerian	Global	Nigerian (%)	Foreign (%)
1.	Vanguard	16,284	2.34	7.41	57.30	5:02	26.70	11	1,491	77.1	22.9
2.	The Punch	10,349	3.04	6.495	47.20	6:21	15.50	15	2,217	83.5	16.5
3.	The Nation	5,302	2.22	3.161	58.40	3:57	24.10	44	6,305	82.7	17.3
4.	Sahara Reporters	2,481	1.85	3.175	62.40	3:31	21.60	147	18,356	73.4	26.6
5.	This Day	2,369	1.88	9.909	64.70	3:20	29.30	193	26,684	78.8	21.2
6.	The Guardian	1,351	1.94	2.184	62.30	3:56	29.70	140	18,734	75.4	24.6
7.	Premium Times	5,794	1.85	8.638	67.40	3:38	31.30	77	7,314	76.7	23.3
8.	The Sun	2,392	2.20	4.439	57.40	4:03	21.60	201	28,144	83.6	16.4
9.	Daily Trust	3,163	2.38	8.493	59.60	5:02	21.30	159	22,426	76.8	23.2
10.	Nigerian Tribune	2,089	2.28	5.383	62.90	4:92	16.30	356	43,915	79.2	20.8
11.	PM News	1,088	2.73	9.369	57.10	6:48	17.00	286	40,555	87.6	12.4
12.	Leadership Nigeria	1,796	1.67	6.673	66.20	5:59	16.50	737	88,626	82.7	17.2
13.	Naij.com	16,615	3.00	4.012	55.70	5:21	25.70	1,046	5,955	84.6	15.4
14.	Daily Times	85	2.80	20.892	55.00	12.21	17.00	928	109,307	84.9	15.1
15.	Channels Television	1,275	1.92	5.642	63.90	3:19	18.30	223	29,861	72.6	27.4
16.	Nigeria World	426	1.10	14.805	69.40	2:39	14.80	1,986	109,535	33.2	66.8
17.	New Telegraph	245	2.00	12.232	58.90	12:28	24.20	1,636	162,181	79.6	20.4

## Links

Links has to do with number of linking the newspaper website has received. Table 2 shows that Naij.com has received the highest number of links (16,615) follow by Vanguard newspaper with 16,284 links. These newspapers websites likely attract users to their websites by various news items on politics, cultures, social, economic, sports, and world news. This wider coverage has likely made them much more popular than others. Daily Times with 85 links is the least in the list. Majority of the newspaper websites have

more than thousand links shows their good performance in this attribute. The web impact of majority of Newspaper in Nigeria is encouraging as the numbers of their links indicate.

### **Page Views**

The Punch has the highest number of average pages viewed by users per day (3.04). Naij.com has the second highest with 3.00. The lowest number of average pages viewed is 1.10 for Nigeria World (Table 2). Generally speaking, all the newspapers websites did abysmally poor in this attribute. This may due to the poor internet accessibility in Nigeria and high tariff of data for browsing. This is supported by the findings of Olley and Chile (2015) on readers' perception of Nigerian Newspapers on the Internet.

### **Downloading Speed**

Table 2 indicates that The Guardian has the fastest downloading speed with 2.184 seconds followed by 3.161 seconds for The Nation. The slowest downloading speed is Daily Times with 20.892 seconds followed by Nigeria World with 14.805 seconds and New Telegraph with 12.232 seconds. The downloading speed of all newspapers websites understudied is very slow and there is need for urgent attention on this attribute by all operators of these websites.

### **Bounce Percentage**

All the newspapers websites have high rate of bounce percentage, the Punch has the lowest with 47.20% and Nigeria world has the highest with 69.40%. (Table 2) This shows that the newspapers are not doing fine in this attribute.

### **Daily Time on Site**

The highest expected daily time spent on site visitors go to New Telegraph (12:28) and closely followed by Daily Times (12:21) as shown in Table 2. The lowest goes to Nigeria World (2:39) and followed by Channels Television (3:19).

### **Search Percentage**

The highest proportion of visits that came from search engines is (31.30) for Premium Time followed by The Guardian (29.70). The lowest is Daily Times (17.00). This shows that majority of the users of the newspaper websites in Nigeria search for news without going through search engines.

### **Traffic Rank**

Table 2 clearly shows traffic rank in Nigeria shows Vanguard having highest traffic rank of 11. The Punch has the second highest traffic rank of 15. The Nation has the third highest traffic rank of 44 while Nigeria World has the lowest traffic rank of 1,986 and followed by Naij.com (1,046). The traffic rank globally indicates Vanguard coming up as number one with 1,491 and followed by The Punch (2,217). The lowest traffic rank globally goes to New Telegraph (162,181) followed by Nigeria world (109,535). This is

an important attribute as it rank newspaper websites base on the traffic they attract, which measure their web impact assessment.

### Users Percentage

The maximum number of Nigeria users is (87.6%) for PM News, followed by (84.9%) for Daily Times. Nigeria World has the least users for Nigeria with 33.2%, followed by (72.6%) for Channels Television. It can be deduced from the Table 2, the foreign viewers preferred Nigeria world (66.8%) most and followed by Channels Television with 27.4%. PM News (12.4%) is the least viewed by foreign users and followed by daily Times (15.1%).

## 6. CONCLUSION AND RECOMMENDATIONS

The results of this study gives an overall picture of Nigeria newspaper websites web impact assessment based on the eight indexes of Alexa internet evaluation tool. Findings show that, most of the Nigeria newspaper websites are not doing fine on the web and need much attention. The downloading speed, page view and bounce rate of most of the newspapers are nothing to write home about, which needs to be given urgent attention as it could increase the number of visitors for the respective newspaper websites and their consequent global reach which translate to more advertisements and invariably more income. Another disturbing trend is some high traffic ranking newspaper website showing weak performance in some of the attributes while some low traffic ranking newspapers performed comparatively better in some of the attributes.

It is the recommended to all administrators of Nigeria newspapers websites to do the overhauling of their websites so as attract more visitors. The website designers of various Newspaper websites are encouraged to advice their clients to increase their search engine optimization (SEO).

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