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A WEBOMETRIC STUDY OF NIGERIAN JOB SEARCH WEBSITES

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Abstract

The purpose of this paper is to evaluate Nigerian job search websites using 'Alexa Internet' a subsidiary company of Amazon.com which provides commercial web traffic data. It is one of the most well known tools for evaluating websites that offers a free-of-charge evaluation service. This study has been carried out using webometric methods. The 19 leading Nigerian job search websites were taken for evaluation. Each job search website was searched in Alexa databank and relevant data were collected, tabulated and analysed using Microsoft Excel worksheet. The outcome of this study shows that Hot Nigerian Jobs has the highest number of links, highest number of average pages viewed per day and highest traffic rank in both local and global. The fastest downloading speed goes to Career24. Jobemy has the lowest bounce percentage and highest percentage of Nigerian users. Jobberman with the highest estimated daily time spent on site by the visitors. The highest percentage of visits that came from search engines is for Job Center Nigeria. Just Jobs has the highest number of foreign users. Overall, Hot Nigerian Jobs performed credibly well with respect to most of the attributes in comparism with its other counterparts. Recommendations were therefore made, based on research findings.

Keywords: Webometric, Nigerian Job search, Websites, Evaluation, Alexa Internet, Alexa databank

INTRODUCTION

In the past decade, the use of the World Wide Web (WWW) as a tool for job-seeking and recruitment has expanded globally, changing the dynamics for job-seekers and recruitment organisations. The World Wide Web has become a major source of information for academic purposes, job hunt and other important activities. Before, job seekers were using conventional ways of searching for jobs. Nowadays, various online job platforms are being used to search for job openings. As noted by Amaechi and Ikande (2017), few years ago, job seekers had to use the traditional methods such as (buying newspapers - searching for job vacancies in Nigeria - phone calls - assigning interviews). But now, the first two and even three of this sequence can be safely removed because people have the Internet at their disposal. Many recruitment organisations in Nigeria are now making use of on-line recruitments and job posting network to provide career resources and information regarding employment opportunities to anyone looking for a job. They also provide services to employers looking to use the power of the Internet to find competent employees to fill positions across Nigeria and around the world. Nigerian Jobs attracts hundreds of thousands of eager job seekers each month who are looking for employment opportunities.

Job search in virtual space allows job seekers to save time, avoid waiting in the queues, and preparing several paper documents. Job seekers can easily find vacancies for jobs in Nigeria online and respond to them or write an e-mail resume, and briefly describe themselves to their preferred organisation. However, special attention should be given to the choice of the most suitable site for job search because there are so many options, but not all resources can provide what job seekers need. Nigerian job search websites have been tested for years by hundreds of thousands of users (Amaechi and Ikande, 2017). These websites greatly increase job seekers chances of finding a good job. All they need do is to select their desired category and start

sending out their resume to the organisations. Information is now at fingertips of job seekers more than before, as many job seekers now access information online through their mobile phones. Therefore, the main purpose of a Job search website is to provide useful information to the job seekers in real time. In order to achieve the goal, there is a need for each job search organisation to have a vibrant websites, in order to perform well and stay in the competition among numerous online job search organisation. The webometric analysis of Nigerian job search websites will help to determine web impact assessment and level of acceptance of this paradigm transformation or revolution in job seeking context.

Webometrics, according to information science 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 (Bjorneborn, 2004). The term webometrics was first suggested by Almind and Ingwersen (1997). Ramesh Babu, Jeyshankar and Nageswara Rao (2010) defined 'webometrics' as a quantitative study of web-related phenomena. The webometrics study could be applied to web with commercial search engines providing the raw data. Malinský and Jelínek (2010) asserted that webometrics is purely a quantitative research area, but which may be enhanced by sentiment analysis and opinion mining. Bjorneborn and Ingwersen (2004), identified four major areas for webometrics: (i) web page content analysis, (ii) web link structure analysis, (iii) web usage analysis (including log files of users' searching and browsing behaviour), and (iv) web technology analysis (including search engine performance). The current study intends to evaluate the Nigerian job search websites using Alexa Internet. Alexa is one of the most widely used tools for evaluation of websites. It was the tool used by previous researchers on webometrics studies (Nahem and Rao, 2016; Stephen, 2017; Oladele, 2017; Muthuraja and Veerabasavaiah, 2018).

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. Alexa is a global pioneer in the world of analytical insight. Alexa Toolbar users access various websites and it is a very powerful tool used to rank website traffic and find out how your website traffic stacks up against all other competitors. This is one of the most accurate freely available tools to find out how well your site ranks up against millions of other sites on the Web (Alexa Internet, 2019). Alexa presents the following websites attributes: traffic rank, pages viewed, speed, links, bounce percentage, time on site, search percentage and local and foreign users. Alexa provides the following clarification on each of the attribute.

- **Traffic rank**: It is an estimate of popularity in a specific country. Alexa computes web sites traffic by analysing 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:** 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:** Estimated percentage of visits that consist of a single page view.

- **Time on site**: It measures daily time on site (mm:ss).

- **Search percentage:** Percentage of visits that came from a search engine.

- **Audience Geography:** This is the percentage of people who visit a website (local and foreign).

LITERATURE REVIEW

Most of the extant researches on webometrics have always focused on academic institutions websites. Maharana, Panda and Sahoo (2012) evaluated web impact factor and link analysis of Indian Institute of Technologies. Adekannbi (2011) conducted a comparative study between African and World Universities on web link analysis data using AltaVista search engine as a tool. Several studies have being carried out by various researchers on different websites using webometric methods. The researcher has attempted to review studies that used Alexa Internet as tool for webometric analysis of websites, as applicable to this study. Naheem and Rao (2017) conducted a webometric study on 8 leading Telugu newspaper websites from the state of AndraPradeesh. It was found that Eenadu newspaper websites did remarkably well in most of the attributes like highest traffic rank in both local and 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. Stephen (2017) evaluated the websites of Ministry of Electronics and Information Technology Organisations in India using the Alexa Internet. The 16 Meity Organisations in India which have the web presence are included in the study. The result of this study reveals that the website of Unique Identification Development Authority of India (UIDAI) is the most popular and in the first position among the entire organisations website. It has global rank 572, 29th rank in India. National Informatics Centre (NIC) and Education Research Network (ERNET) websites with the highest bounce rate of 64.5. UIDAI websites has the highest links of 1154. Among the Meity autonomous bodies National Institute of Electronics and Information Technology (NIELIT) websites ranked holds first rank and overall NIELIT websites holds second rank.

Oladele (2017) carried out webometric analysis on 17 leading Nigerian newspaper websites using Alexa databank. This study reveals that Vanguard and The Punch has the highest traffic rank in Nigeria as well as global and highest number of average pages viewed by visitors or users per day (3.04). 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 highest expected daily time spent on site visitors go to the New Telegraph (12:28) and closely followed by Daily Times 12:21. Muthuraja and Veerabasavaiah (2018) investigated the 10 leading Kannada language newspaper websites from the state of Karnataka. Each newspaper website was searched in Alexa databank and relevant data including traffic rank, pages viewed, speed, links, and bounce percentage, time on site, search percentage, and percentage of Indian/foreign users were collected and these data were tabulated and analysed.

The study revealed that Vijayakarnataka has the highest traffic rank in India (2,255), highest number of average pages viewed per day (7.32) and highest estimated daily time spent on site by the visitors (12:40). Udayavani has 27,903 the highest traffic rank globally. Nevertheless, the current study seeks to apply webometric method using alexa internet to evaluate Nigerian job search websites which has not been explored.

OBJECTIVES OF THE STUDY

The objective of the study is to evaluate Nigerian Job search websites based on Alexa indexes as stated below:

- Traffic rank (Nigeria and Foreign)
- Pages viewed
- Time on site
- Speed
- Links
- Bounce percentage
- Search percentage
- Audience geography (Nigeria and foreign users).

SCOPE OF THE STUDY

The scope of the present study is limited to 19 Job search websites in Nigeria.

METHODOLOGY OF THE STUDY

The webometric analysis of the Nigerian job search was carried out using Alexa Internet, which is known as the most famous tool for evaluating websites. In this study, eight indexes were

selected (traffic rank in Nigeria and global, pages viewed, speed, links, bounce percentage, time on site, search percentage and Nigerian & foreign users percentage).

The 19 leading Nigerian job search websites listed in the website of the Online job search and Nigeria finder (www.splashfind.com/ng & www.nigerianfinder.com) as at March 17, 2019 were taken as samples for evaluation in the present study. The internet addresses (URLs) of these job search organisations were collected from the internet using Google (www.google.com). Subsequently, each job search website was searched on 22nd March, 2019 in Alexa website (www.alexa.com) and all the data were obtained by real-time examination based on evaluation indexes. The data collection process was completed on the same day to minimise possible errors related to frequent website updates as it is expected of a job search websites. The data were further entered into the Microsoft Excel worksheet. Accordingly, data were analysed using descriptive statistics and relevant findings were tabulated in conformity with the set objectives. The list of the job search organisations with their URLs is given in Table 1.

Table 1: List of Job Search Organisation in Nigeria with URLs

S/N	Name of job search	URL
1	Alljobs	www.alljobs.ng
2	Career24	www.careers24.com.ng
3	Careerjet	www.careerjet.com.ng
4	Employment Nigeria	www.employmentnigeria.com
5	Gblcareers	www.gblcareers.com
6	Hot Nigerian Jobs	www.hotnigerianjobs.com
7	Jobberman	www.jobberman.com
8	Job Center Nigeria	www.jobcenternigeria.com
9	Jobemy	www.jobemy.com
10	Job Gurus	www.jobgurus.com.ng
11	JoblistNigeria	www.joblistnigeria.com
12	Jobsinnigeria	www.jobsinnigeria.careers
13	Jobzilla	www.jobzilla.ng
14	Just Jobs	www.justjobsng.com
15	Myjobmag	www.myjobmag.com
16	Mylelo Jobs	www.mylelojobs.com
17	Naija Hot Jobs	www.naijahotjobs.com
18	Naira Career	www.nairacareer.com
19	NG Career	www.ngcareers.com

RESULTS AND DISCUSSION

The data regarding 19 job search websites 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 Job Website	Links	Pages Viewed	Speed (Seconds)	Bounce (%)	Time on Site	Search (%)	Traffic Rank		Users Percentage	
								Nigeria	Global	Nigeria (%)	Foreign (%)
1	Alljobs	14	2.10	2.129	42.70	3:30	32.40	6,035	546, 380	99.3	0.0
2	Career24	71	3.90	1.737	41.70	5:51	25.30	7,307	137,932	96.3	0.0
3	Careerjet	51	2.30	4.207	52.30	2:47	44.30	4, 065	337, 645	91.1	0.0
4	Employment Nigeria	55	2.80	8.022	57.20	4:17	6.10	1,421	198,909	95.9	0.0
5	Gblcareers	32	1.30	16.961	73.60	2:19	13.20	18,895	1,624,420	77.8	0.0
6	Hot Nigerian Jobs	817	5.59	5.267	40.20	7:49	11.20	60	8,912	95.4	2.1
7	Jobberman	259	5.48	1.916	41.20	8:04	13.00	399	52,909	94.9	1.1
8	Job Center Nigeria	88	1.20	9.46	68.90	2:07	45.00	3,380	229, 448	87.7	0.9
9	Jobemy	18	4.70	27.973	36.00	4:50	4.00	5,651	737,490	99.6	0.0
10	Job Gurus	96	3.02	2.345	52.60	4:53	12.40	241	29, 823	96.1	1.3
11	JoblistNigeria	116	3.40	9.34	53.90	7:05	9.80	682	91,489	95.8	1.3
12	Jobsinnigeria	56	2.30	6.591	63.90	3:12	11.60	569	71, 711	96.1	0.0
13	Jobzilla	78	4.17	4.386	41.30	5:55	12.80	392	52, 837	95.9	2.4
14	Just Jobs	66	3.32	5.555	51.90	5:11	13.50	515	60, 336	90.5	6.8
15	Myjobmag	91	3.96	4.356	49.70	5:41	22.20	98	12,447	94.7	1.6
16	Mylelo Jobs	114	2.30	6.638	59.60	3:15	38.40	19,956	873,871	97.4	0.0
17	Naija Hot Jobs	122	2.40	19.427	71.80	2:44	24.90	8,324	569,014	75.9	0.0
18	Naira Career	51	1.40	17.295	65.50	1:46	32.80	18,770	1,442,233	88.8	0.0
19	NG Careers	150	2.85	2.495	52.10	4:06	33.70	138	18,107	94.8	0.8

Links

As presented in Table 2, Hot Nigerian Jobs has the highest number of links (817), Jobberman with 259 links is in second position and NG Careers secured third position with 150 links. Alljobs is the least among them with 14 links. Majority of the job search websites have less than hundred links shows their weak performance in this attribute. This is an indication that, web impact of majority of Job search in Nigeria is not encouraging as signified by numbers of their links.

Page Views

Page views measure the number of pages viewed by site visitors. Hot Nigerian Jobs, Jobberman, Jobemy and Jobzilla are top 4 Page views Job search websites. Hot Nigerian Jobs has the highest number of average pages viewed by users per day (5.59), next is Jobberman (5.48), followed by Jobemy (4.70) and Jobzilla (4.17). The lowest number of average pages viewed is 1.20 for Job Center Nigeria. Other job search websites have shown bad function in this attribute, which may be owing to the poor internet accessibility in Nigeria and high tariff of data for browsing.

Downloading Speed

Jobemy has the highest but slowest downloading speed of 27.973 seconds, followed by Naija Hot Jobs (19.427 seconds) and Naira Career (17.295 seconds). Career24 has the fastest downloading speed of 1.737 seconds, followed by Jobberman (1.916 seconds) and Alljobs (2.129 seconds). The overall downloading speeds are in the range of 1.737 – 27.973 (Table 2), which obviously indicates the weak performance of the Nigerian job search with respect to this attribute.

Bounce Percentage

Estimated percentage of visits that consist of a single page view called bounce rate. Gblcareers has the highest bounce percentage (73.60%), followed by Naija Hot Jobs with (71.80%) and Job Center Nigeria (68.90%). Jobemy with the lowest bounce percentage (36.00%) shows it good performance as shown in Table 2. The higher bounce rate in most of the job search websites indicates their poor performance.

Daily Time on Site

According to Table 2, in this category, Jobberman has the highest daily time spent on site by the visitors per day (8:04), followed by Hot Nigerian Jobs (7:49) and Joblist Nigeria (7:05). The estimated daily time spent on site by the visitors is lowest for Naira Carrier (1:46). The time spent on rest of the websites is in the range of 2:07 – 5:55.

Search Percentage

This is an estimated percentage of visits that came from a search engine. The highest percentage of visits that came from search engines is for Job Center Nigeria with (45.00%) and the lowest is Jobemy with (4.00%) as presented in Table 2. This is an indication that majority of the users of Job search websites in Nigeria search for news without going through search engines.

Traffic Rank

With respect to this attribute, Hot Nigerian Jobs, Myjobmag, NG Career, Job Gurus and Jobzilla are the top 5 best traffic ranked job search websites in Nigeria with traffic ranks of 60, 98, 138, 241 and 392 respectively. The lowest traffic rank in Nigeria goes to Mylelo Jobs (19,956). Out of the 19 job search websites, 10 have traffic rank of less than 2,000, which projects their good performance in this attribute in comparism with others. In the case of global traffic rank, Hot Nigerian Jobs, Myjobmag, NG Career and Jobgurus have traffic rank less than 30000. Hot Nigerian Jobs has the best traffic rank (8,912), followed by Myjobmag (12,447), next is NG Career (18,107) and Job Gurus (29,823). Others have shown very weak performance in this attribute.

Audience Geography

The percentage of people who visit a website (**Local and Foreign**). **Nigerian:** As reported in Table 2, the top 3 job search websites with highest percentage of users in Nigeria are Jobemy (99.6%), followed by all jobs (99.3%) and Mylelo Jobs got (97.4%). Naija Hot Jobs with the lowest percentage of Nigerian users (75.9%).

Foreign: Just Jobs accounted for highest percentage of foreign users (6.8%), followed by Jobzilla with (2.4%) and the lowest in this category is NG Career (0.8%).

Table 3: Nigerian and Foreign Users

S/N	Name of job search	Percentage of Nigerian and foreign visitors
1	Alljobs	Nigeria (99.3%), Others (0.7%)
2	Career24	Nigeria (94.3%), Others (5.7%)
3	Careerjet	Nigeria (91.0%), Others (9.0%)
4	Employment Nigeria	Nigeria (95.9%), Others (4.1%)
5	Gblcareers	Nigeria (77.8%), Others (22.2%)
6	Hot Nigerian Jobs	Nigeria (95.4%), USA (1.5%), France (0.6%), Others (2.5%)
7	Jobberman	Nigeria (94.9%), South Africa (1.1%), Others (4.0%)
8	Job Center Nigeria	Nigeria (87.7%), Sri Lanka (0.9%), Others (11.4%)
9	Jobemy	Nigeria (99.6%), Others (0.4%)
10	Job Gurus	Nigeria (96.1%), South Africa (0.7%), USA (0.6%), Others (2.6%)
11	JoblistNigeria	Nigeria (95.8%), Uganda (1.3%), Others (2.9%)
12	Jobsinnigeria	Nigeria (96.1%), Others (3.9%)
13	Jobzilla	Nigeria (95.9%), UK (1.9%), UAE (0.5%), Others (1.7%)
14	Just Jobs	Nigeria (90.5%), USA (6.1%), India (0.7%), Others (2.7%)
15	Myjobmag	Nigeria (94.7%), USA (1.6%), Others (3.7%)
16	Mylelo Jobs	Nigeria (97.4%), Others (2.6%)
17	Naija Hot Jobs	Nigeria (75.9%), Others (24.1%)
18	Naira Career	Nigeria (88.8%), Others (11.2%)
19	NG Careers	Nigeria (94.8%), USA (0.8%), Others (4.4%)

Table 3 presents the data on Nigeria and foreign users. Most of the foreign users to Nigerian job search websites come from USA, UK, Uganda and South Africa. Other foreign visitors come from countries like Sri Lanka, India, France, and UAE.

CONCLUSION AND RECOMMENDATIONS

This study presented an evaluation of Nigerian job search website using eight indexes of Alexa Internet evaluation tool. Webometrics research want search engines and Job search web crawler

have been used. The purpose of this website evaluation using Alexa Internet tool, helps the webmaster and the respective job search websites to manage the usability of websites. Finding from the study reveals that website of Hot Nigerian Jobs performed credibly well with respect to most of the attributes than its other counterparts. Jobberman and Jobemy also showed good performances in most of the attributes. Others have shown very weak performance in most of the attributes. Some high traffic ranking job search showed weak performance in some of the attributes whereas some low traffic ranking job search website performed somewhat better in some of the attributes. The links, page view, downloading speed and bounce rate of most of the job search are not adequate, urgent attention is therefore required as it could increase the number of visitors for the respective job search websites and their consequent global reach. This study recommends that administrators of Nigeria job search websites should overhauled their websites in order to attract more users or visitors. The website designer of various job search websites are encouraged to advice their clients to optimise their search engine. The present study has been investigative and there is possibility for future research in this area. The result of this study provides an overall preview of the Nigerian job search websites traffic and page ranks of local and foreign.

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