



Awareness, Knowledge and Use of Online Survey Tools amongst Researchers in Nigerian Higher Institutions

Francisca Okoroma*

Kenneth Dike Library, University of Ibadan, Nigeria

Email: frankaonyeka@yahoo.com

Abstract

There is a growing prevalence of online survey for academic research. This can be attributed to the great impact of online survey tools on the researchers' ability to easily develop, disseminate instruments, assemble and analyze data. Though many researchers in the advanced world have become very prone to the use of online survey, their counterparts in the developing economy are still struggling in the adoption of this invaluable tool. This study examines the level of awareness, knowledge and use of online survey tools amongst academic researchers in Nigeria. Questionnaire instrument was used for data collection. The population used for the study consists of eighty academic researchers in higher institutions spread across various parts of Nigeria. The study found that although there is a high level of awareness and preference to online survey tools by Nigerian researchers, yet there is a very low level of knowledge and usage of online survey tools by Nigerian researchers. The reason being that the researchers lack the basic prerequisite skills needed for the processing and development of online survey, amongst other challenges. The study ascertained that Survey Monkey was the most popular and predominantly used survey tool by Nigerian researchers, followed by Survey PRO and Zoomrang.

The study advocated for trainings and workshops on the use of the survey tools in higher institutions in Nigeria, which could be facilitated by the survey tools' designers in collaboration with higher institutions in Nigeria.

Keywords: Online survey tool; Internet survey; Awareness; Researchers; Nigeria.

Received: 3/5/2023

Accepted: 4/1/2023

Published: 4/28/2023

* Corresponding author.

1. Introduction

For more than three decades, countries all over the world have been harnessing the potentials imbedded in the internet. One of such potentials is the use of the internet for survey. This is commonly referred to as online survey, Web or Internet survey. Online survey challenges the conventional research ethics principles such as permission, hazard, obscurity, privacy, and independence. Online survey tools have features of Web 2.0 which give users the opportunity to interrelate, edit, socialize, and add value to information, as well as promote user centered model of construction and flow of information. Online survey consists basically of four steps: the process of developing the survey and uploading on the website; the distribution of the survey, in which the researcher develops a sampling procedure, get in touch with the potential respondents and distributes the survey to them. The third step has to do with the completion of the survey by the respondents and finally the return of the survey. The final stage involves the process by which the researcher downloads the data from the website to their computers in certain designs for data analysis [1]. There are several hundreds of online surveys. Some of the examples of online survey tools are Survey Monkey, Questionpro, SurveyAnywhere, Survey Connect, Zoomerang, WebSurveyor.com, SurveyZ and Inquisite. According to Author in [2] Survey Monkey is a well known online survey tool which is packaged with a fairly large set of features bearing in mind the pricing structure, designed to be easy to use but at the same time does not permit high degree of adaptation that other products like Inquisite does. The ease of use associated with Survey Monkey may be the contributing factor for its relative popularity and adaptation by many researchers. SurveyZ is an online service product that enables one to produce and evaluate surveys online, mainly used by big educational institutions and corporate organizations. Inquisite is another peculiar type of assessment instrument tool. It is a software package that one purchases and use for creating ones instruments, and again it allows the surveyor to post instruments to respondents' website for data collection. It offers divers kinds of features that are designed towards promotion research; including expansive survey customization, following up respondents and responses. Many researchers have reported that online surveys do yield considerable higher response rates than the print surveys [3, 4, 5]. This can be attributed to the numerous advantages associated with online surveys. For instance online survey has a larger coverage in terms of population and time. It enables researchers to create and distribute surveys to the target respondents remotely at their convenience in an expeditious manner. Authors in [6] added that online survey produces results in synchronous way, so that both the respondents and researchers can observe data results being assembled right away. It is an efficient tool in the conduction of both formal scientific research and informal questionnaires such as customer satisfaction questionnaire. It has been established that Internet-based surveys are time and cost conservative for larger populations whereas paper surveys can be more suitable for smaller populations. The Author in [7] collaborated that though there are many ways of assembling the needed data, online evaluation tools have the latent to aid in some aspects of the evaluation process with the following benefits: Lower cost when compared to other data collection methods. It supports the data gathering procedure, and responses are automatically laid up in the provider's database with the potentials for someone to download the results whenever needed. Therefore online survey tools are indeed an easy, speedy and cost effective way of conducting various kinds of survey. It eliminates the need for both manual data entry and data analysis in so many instances.

As noted by Author in [8] online survey poses issues to conventional research moral principles such as

agreement, danger, privacy, confidentiality, and independence. Buchanan research of 750 University Human Research Ethics Boards in the United States further exposed the fact that online research procedures involving Web surveys are the most often appraised. This indicates the growing prevalence of this kind of methodology for academic research. In another research conducted by the Authors in [9], it was ascertained that online surveys recorded the number of deliverable e-mails, keeping a precise measure of the sample size. While others have elements to follow up the respondents' IP addresses, so that they do not have to deliver reminder messages to those that have already completed the survey. In this case duplication of efforts is eliminated as well as some kind of interruptions and inconveniences that are associated with reminders of tasks that have already been accomplished. In another study by Authors in [10], though electronic surveys are inexpensive and quicker than mail surveys, yet the response rate was not as high as that produced by mail surveys. Again, Authors in [11] opined that bulk of the people use Internet for amusement and leisure activities; as a result they tend to disregard research survey participation requests, which results into a low response rate. Authors in [12] added that targeting the population with access to the internet, such as students and employee will likely yield high response rate to online survey rather than those population with infrequent or no internet access. This could account for why populations within the developing countries with inadequate infrastructures are likely to have a low adoption rate of online survey. The Author in [13] highlighted an extensive catalog of technological challenges involved in the exhibition design of internet surveys, which are hindrances to the use of online research tools. Such limitations include the issue of choosing screen-by-screen, how to design text set-up for questions and, method of using backdrops, graphics, symbols, progress indicators, and direction-finding guidelines, method of choosing radio buttons, drop-down boxes, check boxes, and the full list boxes. Other issues arise from the delivery of the survey to the potential respondents, such as sampling methods issue e.g who are the people to be surveyed, their contact delivery modes, how they will be educated on the web surveys, invitation procedures and how respondents should be invited. Though the use of online survey has been a well known phenomenon across disciplines, and fast gaining prevalence in academic research, it seems the adoption rate in the developing world is slow, especially in Nigeria, as there seems to be dearth of literature within Nigerian context on the subject, and non actually focused on the awareness, knowledge and level of use of online survey by researchers in Nigeria. This study seeks to address the level of awareness, knowledge and use of online survey amongst researchers in Nigerian higher institutions.

2. Objectives

The general objective of this study is to find out the level of awareness, knowledge and use of online survey by researchers in Nigeria.

The specific objectives are to:

1. Find out the various online survey tools that are used by researchers in Nigeria
2. The level of awareness of online survey by Nigerian researchers
3. Ascertain the extent of knowledge of online survey by Nigerian researchers
4. Ascertain the frequency of use of Online survey by Nigerian researchers
5. Identify reason for use or non use of Online survey by Nigerian researchers.

3. Research Methodology

The study adopted Survey research design. Questionnaire instrument was deployed for data collection. Survey questionnaire was designed for academic researchers in higher institutions in Nigeria. A total of eighty researchers were used for the study, which spread across thirteen institutions of higher education in various parts of the country. The researcher added open-ended questions to allow the respondents to liberally state their opinions. The study made use of a high breed survey data collection technique. Initially, online survey tool was deployed for data collection, but the response rate was insignificant as only twenty five people responded within a period of two months. This necessitated the deployment of paper survey method to supplement. Data collected was analyzed using simple frequencies and percentage.

4. Results

Demographic Representation of the Respondents

This section deals with the profile of the library in study. Such background knowledge include the year of establishment of the Kenneth Dike Library, University of Ibadan the total collection size, time the institution started IR amongst others.

Table 1: Distribution of respondents by Institution.

Institutions	Frequency	Percentage
Federal School of Statistics (FSS)	10	12.5
University of Ibadan (UI)	17	21.3
Alvan Ikoku FCE Owerri	39	48.8
Tai Solarin University, (TSU)	1	1.3
Obafemi Awolowo University (OAU)	2	2.5
University of Ilorin	1	1.3
NIMR	2	2.5
NSCDC	1	1.3
Kedi Health Care (KHC)	1	1.3
Lagos Business School (LBS)	1	1.3
Samuel Adegboyega University (SAU)	2	2.5
Federal University of Technology, Owerri Paul University (PU)	2	2.5
University (PU)	1	1.3
Total	80	100.0

Table 1 highlights the listing of the respondents by their institutions. A sum of eighty (80) respondents spreading across thirteen (13) institutions in various parts of Nigeria was used for the study. From the table 10(12.5%) of the respondents were from Federal School of Statistics, 17(21.3%) were from University of Ibadan, whereas 39(48.8%) of the respondents were from Alvan Ikoku FCE Owerri. On the other hand, 1(1.3%) of the respondents is from Tai Solarin University, University of Ilorin, NSCDC, Kedi Health Care, Lagos Business School, and Paul University respectively, while 2(2.5%) of the respondents were from Obafemi Awolowo University, NIMR, Samuel Adegboyega University, and Federal University of Technology, Owerri respectively. The table revealed that majority of the respondents was from Alvan Ikoku FCE Owerri, followed by University of Ibadan and Federal School of Statistics.

Table 2: Distribution of respondents by sex.

Sex	Frequency	Percentage
Male	42	52.5
Female	38	47.5
Total	80	100.0

In table 2, 42(52.5%) of the respondents are male, while 38 (47.5%) are female. This shows that both sexes were well represented.

Table 3: Distribution of respondents by educational qualification.

Educational qualification	Frequency	Percentage
First degree	10	12.5
Master degree	25	31.3
PhD	36	45.0
Others	9	11.3
Total	80	100.0

Table 3 shows that 10(12.5%) respondents had First degree, 25(31.3%) had Master degree, 36(45.0%) had PhD, and 9(11.3%) had some other academic qualifications not disclosed in the study. PhD academic qualification was the most predominant in the study.

Table 4: Distribution of respondents by awareness of online survey.

Are you aware of online survey	Frequency	Percentage
No	4	5.0
Yes	76	95.0
Total	80	100.0

Table 4 revealed that most of the respondents 76(95.0%) are generally aware of the existence of online survey, as only 4(5.0%) are not aware. That shows that most researchers are aware of the existence of online survey tools.

Table 5: Distribution of respondents by the survey research tool they prefer.

Type of survey preferred	Frequency	Percentage
Paper/Mail Survey	29	36.3
Online survey	51	63.7
Total	80	100.0

Table 5 identifies the frequency of the type of survey tools preferred by the respondents. A total of 29(36.3%) persons preferred paper/mail survey, and 51(63.7%) of them preferred online survey. That indicates that many Nigerian researchers prefer online survey to paper/mail survey.

Table 6: Respondents' reasons for preference to Online Survey research tool.

Reasons for preferences	Frequency	Percentage
No response	18	22.5
Proper understanding	6	7.5
It's easier	27	33.8
It is faster	16	20.0
Wider in coverage	7	8.8
Very handy	5	6.3
More realistic	1	1.3
Total	80	100.0

Table 6 highlights the respondents' reasons for preference to the use of online survey type as against paper. A total of 18 persons did not respond to the question. Some of the respondents 27(33.8%) make use of online survey tool due to it is convenient and easier to use, and 16(20.0%) indicated that online survey tools are faster, while 6(7.5%) opined that the survey tools are used due to their proper understanding of the technical aspects. On the other hand 8(8.8%) indicated that online survey tools are used because of their wide coverage, and 5(6.3%) of the respondents indicated that they are very handy (just the device and access to the internet) unlike bulky paper questionnaire, and only 1(1.3%) of the respondents ascertained that the tool is very realistic.

Table7 presents information on the extent of awareness of the online survey tools by the respondents in the study. Many of the respondents 49 (61.2%) indicated that they were aware of Questionpro, while 31(38.8%) were not aware. For Survey Monkey, 38(47.5%) of the respondents were aware and 42(52.67%) were not aware. Again 39(48.8%) of the respondents were aware of SurveyPro whereas 41(51.2%) were not aware. SurveySite.com recorded 38(47.5%) awareness as against 42(25.6%) persons who were not aware, while Survey Connect has 37(46.3%) persons that were aware as opposed to unawareness by 43(53.8%) respondents. On the other hand, 33(41.3%) of the respondents were aware of Survey Writer and 47(58.8%) were not aware. Hosted Survey recorded 41(51.3%) persons who were aware of it and 39(48.7%) persons that were not, while for SurveySystem.com, 36(45.0%) were aware and, 44(55.0%) were unaware. The respondents that were aware of WebSurveyor.com were 35(43.8%) and 45(56.3%) were unaware. SurveyAnywhere has a lower awareness of 35(43.8%) by the respondents and more 44(56.3%) who were not aware. While Zoomerang recorded 32(40.1%) persons who were aware and 48(60.1%) respondents who were not aware.

Furthermore, SurveyTracker.com had 34(42.5%) responses who indicated that they were aware, and 46(57.6%) responses that were unaware, whereas 32(40.0%) persons were aware of SurveyZ.com and 48(60.0%) respondents were unaware. Finally for SurveyView.com 31(38.7%) were aware, 49(61.3%) persons were not, SurveyHeaven.com recorded 24(30.0%) awareness and a higher level of unawareness 56(70.0%) by the respondents while for SurveyGold.com, respondents were 23(28.8%) persons who were aware and 57(71.3%) persons who were unaware.

Table 7: Extent of awareness of the online survey tools.

s/n	Online survey tools	Totally unaware	Somewhat Unaware	Aware	Highly aware	\bar{x}	S.D
1	Questionpro	14 17.5%	17 21.3%	41 51.2%	8 10.0%	2.54	0.899
2	Survey Monkey	21 26.3%	21 26.3%	14 17.5%	24 30.0%	2.51	1.180
3	SurveyPro	20 25.0%	21 26.3%	28 35.0%	11 13.8%	2.38	1.011
4	SurveySite.com	17 21.3%	25 31.3%	30 37.5%	8 10.0%	2.36	0.931
5	Survey Connect	18 22.5%	25 31.3%	28 35.0%	9 11.3%	2.35	0.956
6	SurveyWriter	20 25.0%	27 33.8%	21 26.3%	12 15.0%	2.31	1.014
7	Hosted Survey	23 28.7%	16 20.0%	35 43.8%	6 7.5%	2.30	0.973
8	SurveySystem.com	20 25.0%	24 30.0%	28 35.0%	8 10.0%	2.30	0.960
9	WebSurveyor.com	18 22.5%	27 33.8%	28 35.0%	7 8.8%	2.30	0.920
10	SurveyAnywhere	21 26.3%	24 30.0%	26 32.5%	9 11.3%	2.29	0.983
11	Zoomerang	19 23.8%	29 36.3%	25 31.3%	7 8.8%	2.25	0.921
12	SurveyTracker.com	19 23.8%	27 33.8%	32 40.0%	2 2.5%	2.21	0.837
13	SurveyZ.com	22 27.5%	26 32.5%	26 32.5%	6 7.5%	2.20	0.933
14	SurveyView.com	24 30.0%	25 31.3%	23 28.7%	8 10.0%	2.19	0.982
15	SurveyHeaven.com	20 25.0%	36 45.0%	16 20.0%	8 10.0%	2.15	0.915
16	SurveyGold.com	21 26.3%	36 45.0%	18 22.5%	5 6.3%	2.09	0.860
Weighted Mean = 2.29							

Table 8: Test of Norm showing the extent of awareness of online survey tools.

Interval	Mean index	Extent of awareness	Frequency	Percentage
1-32		Low	26	32.5
33-64	36.73	High	54	67.5

From table 8, 32.5% (n=26) had low extent of awareness, and 67.5% (n=54) had a high extent of awareness of online survey tools. Therefore, there is a high extent of awareness of online survey tools in the study.

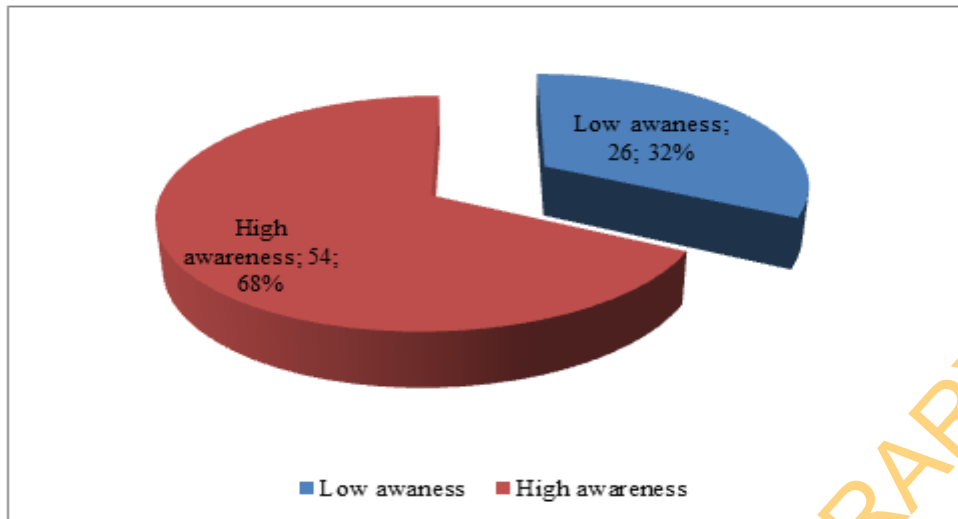


Figure 1: Pie Chart showing the extent of awareness of online survey tools.

Table 9: Level of knowledge on online survey tools by researchers in Nigeria.

Level of knowledge about online survey	Frequency	Percentage
Not adequate	20	25.0
Barely adequate	42	52.5
Highly adequate	18	22.5
Total	80	100.0

Table 9 revealed the level of knowledge on online survey tools, 20(25.0%) of the respondents did not have adequate knowledge about online survey, 42(52.5%) persons had barely adequate knowledge on the tool, while only 18(22.5%) of the respondents were highly informed on online survey tools. Hence, there is low level of knowledge about online survey tools by the researchers in Nigerian higher institutions, as a total of 62(78%) respondents do not have adequate knowledge on the tools.

Table 10: The distribution of respondents by their use of online survey tools.

Do you make use of online survey tools	Frequency	Percentage
No	25	31.3
Yes	55	68.8
Total	80	100.0

In table 4, 55(68.8%) of the respondents claimed that they do make use of online survey tools, and 25(31.3%) do not use online survey tools at all.

Table11: Respondents frequency of usage of online survey tools.

How often do you use online survey tools	Frequency	Percentage
Never	20	25.0
Rarely	28	35.0
Regularly	32	40.0
Total	80	100.0

The frequency of use of online survey tools as highlighted on table 11 shows that only 32(40.0%) respondents use online survey tools regularly, while 28(35.0%) rarely use online survey tools, and 20(25.0%) have never used the online survey tools at all. That means that the use of online survey tools by researchers in Nigeria is low as many of the respondents 48(60%) have never or rarely use it.

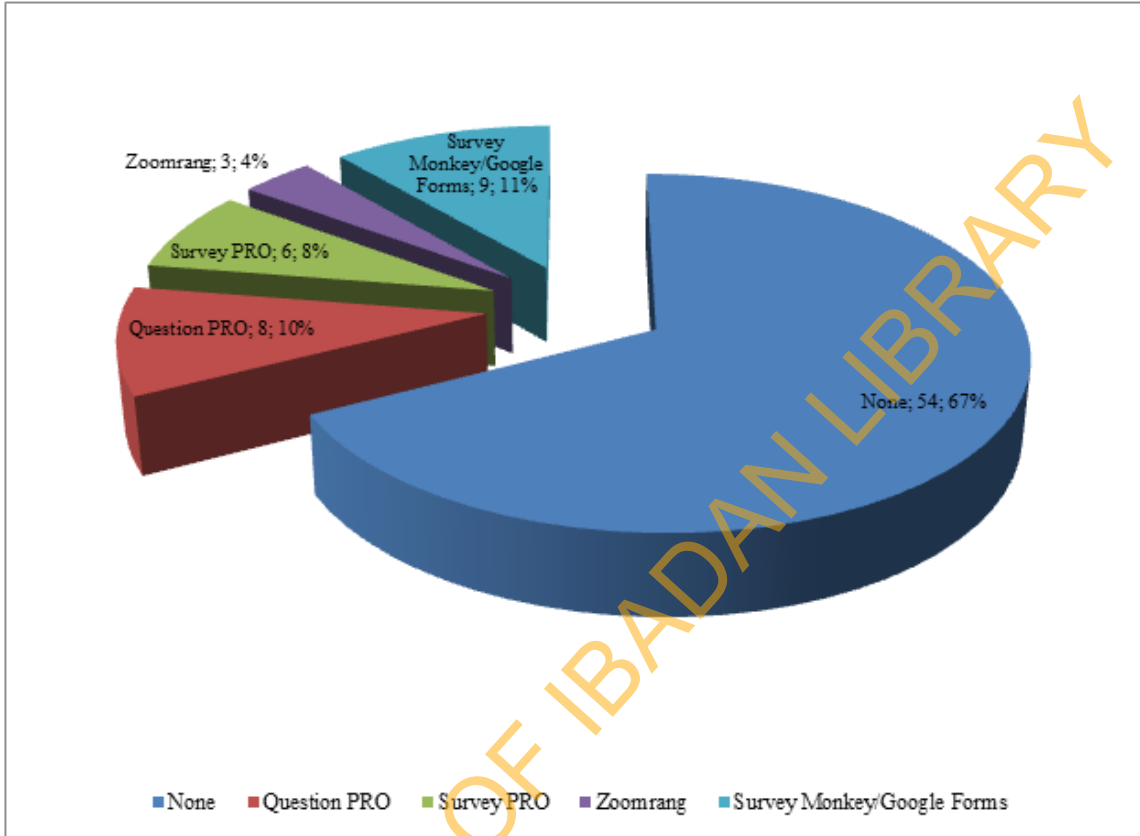


Figure 1: Pie chart showing the types of survey tool(s) ever used by the respondents for research.

Figure 1 highlighted that only four online survey tools have ever been used by the respondents, with 9 (11%) use of Survey Monkey, followed by 6(8%) use of Survey PRO and 8(10%) use of Question PRO. While the majority 54(67%) have never used online survey tools at all for research. This exposes the fact that there is a very low level of use of online survey tools by academics in Nigeria for research purpose, with Survey Monkey being the most significantly used online survey tool.

Table12: reasons for non usage of online survey tools.

Reasons for non usage of online survey tools	Frequency	Percentage
No response	37	46.3
Lack of awareness	10	12.5
Lack of internet	16	20.0
No opportunity to use it	16	20.0
Technical issues	1	1.3
Total	80	100.0

Table12 explains the reasons behind non use of online survey tools by the respondents, which were itemised in

the open-ended question. About 46% (37 persons) did not give any answer to the question, whereas 12.5% indicated that there is lack of awareness and sensitisation on the tools. However, 20.0% of the respondents indicated that there is lack of internet access and opportunities to use it, whereas only 1.3% indicated that there are technical issues.

5. Discussions

The study recorded a high level of awareness of online survey tools by researchers in Nigeria as most of the respondents (95%) were quite aware of online survey tools, and only 5% of them were not aware. That shows that most of the researchers in Nigeria are aware of the existence of online survey tools. There were disparities in the extent of awareness by the respondents for the different online survey tools, with Survey Monkey ranking the highest in terms of level of awareness by the respondents. Interestingly, most of the researchers preferred online survey to paper or mail as they affirmed that it is easier to use, faster, wider in coverage, very handy and more realistic. Despite the high level of awareness and preference to online survey tools by Nigerian researchers, the study identified a very low level of usage of online survey tools by Nigerian researchers, as only 18(23%) of the respondents have ever used the tool for research. The respondents ascertained that they have a low level of knowledge about online survey tools, as a total of 62(78%) did not have adequate knowledge on the tool. Many of them do not have the skills required to harness the tools for academic activities. From the open-ended questions many respondents indicated that "I do not know how to use the online survey tools for research". That shows that the basic skills required in the processing and development of the survey from the inception stage of uploading on the website; to the dissemination of the survey to target population, in which the researcher develops a sampling method, contact the potential respondents and deliver the survey to them, and the final level where by the researcher downloads the data from the website to their research computers in certain formats for data analysis, are missing. This gap however brought an impediment to the use of the tool by the researchers in Nigeria, as one can never put into use a tool he or she does not have adequate and proficient knowledge and skill on. This resulted into a very low level of use of the tools by the researchers in Nigeria.

Surprisingly, many of the researchers 54(67%) who claim to be aware of the tools have never used online survey tools at all for research. This has implications on the Survey tool designers, the institutions and the researchers to work towards boosting the level of knowledge and use of the tools as well as identifying other reasons for inadequate usage of online research tools by the researchers. For instance Weimiao (2010) identified some technical issues involved in the display design of web surveys, which are hindrances to the use of online research tools. If the technical issues associated with online survey tools are resolved and the tools are more user friendly, it will enhance their usage.

Again infrastructural inadequacy characterized with third world countries is another hindrance limiting the use of online survey, as identified in the study. Many researchers in higher institutions in Nigeria do not have regular access to the internet and other cutting edge technology which are prerequisites to the use of the tools. This was collaborated by the responses in the open-ended questions, as many claimed that irregular access to the internet have prevented them from using the tools. This also results in very low response rate. The study brought to the limelight that Survey Monkey is the most prominently used survey tool (11%) by Nigerian researchers,

followed by Survey PRO and Zoomrang with only 8% and 4% usage respectively. The reason for the predominant use of Survey Monkey may not be unconnected with the findings of Marra (2006) that Survey Monkey is a popular online survey tool that comes with a relatively large set of features considering the pricing structure and also designed to be easy to use. The user friendliness and flexible pricing structure of the software aid in wider adaptation of the tool. This is due to the global economic crisis heightened by Covid-19 pandemic that further limited the purchasing power of many Nigerians. While currency exchange rate is going higher as well as prices of goods, the income of the masses remain static. This is a limiting factor as both the subscription to the internet and the purchase of smart device to access the internet require relatively large amount of funding.

6. Conclusion

Online survey tools adaptation in Nigeria is yet to attain a maximum spread. Though researchers are quite aware, do appreciate and are willing to utilize online survey tools for academic and professional activities, yet they have not been able to do so, as they have been handicapped by various issues, including inadequate knowledge and skills to harness the tools. To this end, there is a need for proper training on the use of the tools to enable researchers effectively and efficiently use the tools. The trainings could be facilitated by the surveyors' designers in collaboration with higher institutions in Nigeria.

References

- [1]. Weimiao F., Zheng Y. (2010). Factors affecting response rates of the web survey: A systematic review *Computers in Human Behavior* 26 (2010) 132–139. www.elsevier.com/locate/comphumbeh
- [2]. Marra, R. M. and Bogue, B. (2006). A critical assessment of online survey tools. *Journal of Women in Engineering ProActive Network*.
- [3]. Liu, M., & Wronski, L. (2017). Examining completion rates in web surveys via over 25,000 real-world surveys. *Social Science Computer Review*. Retrieved from <http://journals.sagepub.com/doi/abs/10.1177/0894439317695581>
- [4]. Koundinya, V., Klink, J., Deming, P., Meyers, A., & Erb, K., (2016). How do mode and timing of follow-up surveys affect evaluation success? *Journal of Extension*, 54(1). Retrieved from <https://www.joe.org/joe/2016february/rb1.ph>
- [5]. Schonlau, Fricker, & Elliott, 2002. Advantages and disadvantages of internet Internet Research Surveys. *Field Methods*. Vol. 14 No. 4, 347-367.
- [6]. Buchanan and Hvizdak, E. E. (2009). Multiple reminder and telephone contacts. *Journal of Empirical Research*. Vol. 4 No. 2, 37- 48.
- [7]. Yun, G. W. and Trumbo, C. W. (2006) Comparative response to a survey executed by post, E-mail, & Web form. *Willey Online Library*. Retrieved from <http://doi.org/10.1111/j.1083-6101.200.tb00112.x>

- [8]. Buchanan and Hvizdak, E. E. (2009). Multiple reminder and telephone contacts. *Journal of Empirical Research*. Vol. 4 No. 2, 37- 48.
- [9]. Amany S. and Krishna B. (2017). Examining factors impacting online Survey Response Rates in Educational Research: perceptions of Graduate Students. *Journal of MultiDisciplinary Evaluation* Volume 13, Issue 29. ISSN 1556-8180 <http://www.jmde.com>
- [10]. Shannon, D. M., & Bradshaw, C. C. (2002). A comparison of response rate, response time, and costs of mail and electronic surveys. *Journal of Experimental Education*, 70(2),179-92
- [11]. Silva, S. C. and Duarte, P. (2014), "Suggestions for international research using electronic surveys", *The Marketing Review*, Vol. 14, no 3, 297-310.
- [12]. Shih, T.H. and Fan, X.T. (2008) Comparing Response Rates from Web and Mail Surveys: A Meta-Analysis. *Field Methods*, 20, 249-271. <http://dx.doi.org/10.1177/1525822X08317085>
- [13]. Weimiao (2010) Factors affecting response rates of the web survey: A systematic review *Computers in Human Behavior* 26 (2010) 132–139. www.elsevier.com/locate/comphumbeh