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## EXAMINING THE FACTORS AFFECTING THE ADOPTION OF ONLINE SURVEY TOOLS AMONGST RESEARCHERS IN NIGERIA

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**ABSTRACT:** *Online surveys have become the prominent method of eliciting information in academic research. However, irrespective of its ease of use, quick response rate, and low cost rate, many researchers especially in the developing world are not fully embracing the use of this valuable research tool. Literature reviewed extensively the various types, significance and response rate of online survey, none actually focused on researchers in Nigeria and factors limiting their adoption of online survey. This work seeks to examine the factors inhibiting the adoption of online survey tools by researchers in Nigeria, and to proffer solutions towards the enhancement of usage of this valuable tool in Nigeria and other parts of the world. Survey research design was used for the study. Survey questionnaire was designed and distributed to academic researchers in higher institutions in Nigeria. The study found that inadequate technical skills, Poor access to the internet and other cutting edge facilities occasioned by poor funding and low response rate characterized of online survey in Nigeria are strong limiting factors to the growing use of online research tools in Nigeria. Efforts need to be channeled appropriately towards advocacy programmes and training of researchers in Nigeria on the various research tools. To improve the response rate of online surveys, the sensitization programmes on online survey need to include the benefits derived from surveys by both the researcher and the respondents.*

**KEYWORDS:** online survey, researchers, research tool, adoption rate, Nigeria

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## INTRODUCTION

There is a current drastic shift from traditional paper survey to web based online survey. This can be partly linked to the fact that online survey is a highly convenient research tool coupled with the recent global pandemic crisis characterized of social distancing which poses severe limitations to paper survey. Online survey also known as Web or Internet survey, bridges time and space, in this case there is no need for physical contact between the researcher and the respondents, and the respondents' can complete the survey at their own convenient time.. While paper or mail survey can be more appropriate for a small population, online survey is more suitable for larger population, as it is as well more cost effective. This is due to the fact that the cost of online survey is mainly the initial processing cost, while most of the other costs including the traveling costs are eliminated. Again, online survey creates room for interaction, and the interactive nature makes it very appealing for respondents to be more willing to respond to the questions promptly. Yun and Trumbo (2000) ascertained that online survey tools have the benefit of low cost, facilitate a better response rate and data collection procedure since responses are automatically stored in the providers database for the researcher to download at his convenience. On the other hand, (Dillman,

2000) opined that online questionnaires are often designed to provide feedback and summarized statistics about an individual's responses, which can serve as an incentive to participate.

Amany Saleh and Krishna Bista (2017) examined the factors impacting online Survey response rates in educational research and discovered that the disadvantage of online survey has to do with email address, as some people have more than one email address including those they rarely check. With this kind of scenario, the respondent might not have access to the survey even though it has been sent to the rarely used email, while the researcher on the other side will be endlessly waiting for response. The relevance of the topic to the respondents and the length of survey are also a major factor in the response rate for any survey ((Dillman, 2007; Liu & Wronski, 2017; Porter, 2004b,). If the research focus is topical and appropriately designed to suit the target population, it will most likely receive quick and maximum response, in contrast to a survey that does not necessarily fit into the line of thought of the population. Chenicheri Sid Nair , [Phillip Adams and Patricie Mertova](#) (2008) suggested that in order to receive and maintain good survey response rates it is essential to understand the needs of the respondents and their perceptions of the survey. Again, the presentation of a survey on the website can positively or negatively affect the response rate. For example, a survey question that has technical issues will most likely cause the respondents to lose interest and discontinue with the survey. In the same vein a survey question with poor wordings will reduce the passion of the respondents and make them to drop off from the web survey process, whereas a well worded questionnaire with no grammatical and technical errors will invariably receive maximum attention and response from the target group. [Couper \(2000\)](#) collaborated that if a survey questions is poorly worded, it will cause the respondents to misunderstand the questions and so give an inaccurate answer.

Silva and Durante (2014) posited that majority of people use the Internet for entertainment and recreational activities, which make them neglect online survey participation requests, resulting in a low response rate. Muñoz- Leiva et al (2010) reported that personalizing the invitation to participate in the survey and frequent reminders significantly impacts on the response rate. This can be due to the fact that most internet users prefer to check out and respond to messages targeted to them personally than bulk messages.

Other factors influencing survey response rate according to Fan and Yan (2010) include sample, delivery mode, invitation design; the use of pre-notification, reminders and incentives. Shih and Fan (2008), and Vance (2011) reported that target population with access to internet, such as students and employee are likely to respond to online survey than those without or having irregular internet access. This could account for why target population in the third world countries with less infrastructural advancement are likely to have a low adoption rate of online survey. Mercer, Caporaso, Cantor, & Townse (2015) on the other hand ascertains that prepared incentives increased the response rate of online survey, while Vance (2011) opined that response rate can be affected by sponsors, as academic and government sponsored research gain more response than commercially sponsored survey. The position of the researcher can as well influence response rate, as a high power position or identity of the researcher tend to generate more responses than one in a lower power position (Pan et al, 2013).

Bennett and co-workers employed a multiple communication strategy directed at increasing the engagement of both staff and students, which included personalized emails to programme leaders and course coordinators; notices in the internal faculty electronic newsletter; notices on the online unit sites; electronic reminder messages sent to students; posters placed around the faculty; and sending reminder messages to staff. This strategy resulted in a high survey response rate in the Faculty of Education (83.2%) compared with the university average (43.8%). The strategy complemented the central university communication strategy, which included sending global emails and reminder messages to students and staff (Bennett *et al.*, 2006). The researcher presented a key factor to close the gap in low response rate which is the use of incentives, as a sizeable number of contacted non-respondents (25.4%) in his research indicated a demand for a reward in return for completing the survey. Morton (2002) collaborates that there was a behavioural change in students born from the 1980s onward. These students, referred to as 'generation Y', expected something in return for their effort. Although these students are more likely to complete surveys online due to they are 'Tech-savvy' or technology driven generation. The author suggested that incentives may improve response rates, particularly among students reluctant to complete surveys. Buchanan and Erin E. Hvizdak (2009) addressed ethical and methodological concerns of human research ethics in online survey and recommended a consistent protocol review of online surveys to ensure appropriate human subjects protections in the face of emergent electronic tools and methodologies.

In Nigeria, it is obvious that Covid-19 pandemic affected research output due to the social distancing, and on line survey research tool that was supposed to be an option was not well adopted by researchers in Nigeria. This work is necessitated by the fact that the findings will bring to the limelight the reasons for the low adoption rate of online survey amongst researchers in Nigeria, which when properly addressed will enhance both research output and the use of online survey research tools. From the ongoing, literature focused more on the factors affecting response rate of online survey, with little emphasis on the researchers' use of online survey for research. There is actually no research conducted on the factors affecting the adoption of online survey by researchers in Nigeria. This research seeks to identify those factors that constitute a hindrance to the adoption of online survey by researchers in Nigeria.

Specific research questions are:

1. What are the factors affecting the adoption of online survey tools by researchers?
2. What are the proposed solutions towards a higher use of online survey tools by researchers?

## RESEARCH METHOD

Survey research design was used for the study. Questionnaire instrument was used for data collection. Survey questionnaire was designed for academic researchers in higher institutions in Nigeria. In all, a total of 80 researchers which spread across 13 institutions in different parts of Nigeria participated in the study. The researcher included open-ended questions which enabled the respondents to freely express their opinions. A high breed survey data collection tool was used for the study. In the first instance online survey tool was deployed for data collection, but the response

rate was very low, only 25 persons responded for a period of two months. This necessitated the use of paper and mail survey method to augment the response rate. The data collected was reported using simple frequencies and percentage.

## RESEARCH FINDINGS

The research findings are discussed under the following headings:

**SECTION A:** Demographic Representation of the Respondents

**SECTION B:** Types of online survey tools used by researchers in Nigeria

**SECTION C:** Factors affecting the adoption of online survey tools by researchers in Nigeria

**SECTION D:** The proposed solutions towards a higher use of online survey tools by researchers

**SECTION A:** Demographic Representation of the Respondents

**Table 1: Distribution of respondents by Institution**

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

Table 1 shows the distribution of the respondents by Institution. A total of 80 respondents which spreads across 13 institutions in different parts of Nigeria were 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, while 39(48.8%) of the respondents were from Alvan Ikoku FCE Owerri. Again, only 1(1.3%) person represented Tai Solarin University, University of Ilorin, NSCDC, Kedi Health Care, Lagos Business School, and Paul University respectively, whereas 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 were 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: Frequency distribution of respondents by educational qualification**

Educational qualification	Frequency	Percentage
First degree	10	12.5
Master degree	25	31.3
Ph.D.	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 other academic qualification not disclosed in the study. In the study, PhD academic qualification is the most represented in the study.

#### **SECTION B: Type of online survey tool(s) ever used by researchers in Nigeria**

**Table 4 Type of online survey tool(s) ever used by researchers in Nigeria**

Type of online survey tool(s) ever used	Frequency	Percentage
None	54	67.5
Question PRO	8	10.0
Survey PRO	6	7.5
Zoomrang	3	3.8
Survey Monkey	9	11.3
Total	80	100.0

Table 4 revealed 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 shows that there is a very low level of use of online survey tools by researchers in Nigeria for research, with Survey Monkey being the most prominently used survey tool.

#### **SECTION C: Factors affecting the adoption of online survey tools by researchers in Nigeria**

**Table 5 Factors inhibiting the adoption of online survey amongst researchers**

s/n	Factors	No	Yes
1	Inadequate knowledge on the technology	6(7.5%)	74(92.5%)
2	Inadequate awareness on online survey tools	9(11.3%)	71(88.8%)
3	Poor access to the internet and other cutting edge facilities	18(22.5%)	62(77.5%)
4	Lack of fund for incentives for completing the survey	35(43.8%)	45(56.3%)
5	People use the internet mainly for entertainment	27(33.8%)	53(66.3%)
6	Lengthy survey	25(31.3%)	55(68.8%)
7	Surveys design/presentation	27(33.8%)	53(66.3%)
8	Low response rate	27(33.8%)	53(66.3%)

Table 5 shows the factors inhibiting the adoption of online survey tools for research among researchers. Inadequate knowledge on the technology was rated the major factor 74(92.5%) inhibiting the use of online survey, followed in succession by inadequate awareness 71(88.8%) on online survey tools, poor access to the internet and other cutting edge facilities 62.(77.5%). On the other hand, 45(56.3%) of the respondents opined that there is lack of fund for incentives to encourage people to complete, while 53(66.3%) of the respondents respectively ascertained that the lengthy nature of the research questions, survey design issues, low response rate characterized of online survey are the limiting factors.

**Table 6: Other reasons for non-usage of online survey tools as listed on the open-ended questions**

Reasons for non-usage of online survey tools	Frequency	Percentage
No response	37	46.3
Lack of sensitization	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

Table 6 shows the reasons for non-usage of online survey tools by the respondents, as itemized in the open-ended question. Approximately 46% (37 persons) did not respond to the question, while 12.5% indicated that there is lack of sensitization on the tools. However, 20.0% of the respondents indicated lack of internet access and opportunities to use it, whereas only 1.3% indicated technical issues.

**SECTION D:** The proposed solutions towards a higher adoption of online survey tools by researchers



The respondents responded to this research question through the open ended questions. Three persons were of the opinion that advocacy programmes and training of researchers on the effective use of the tool will enhance the use. Four persons affirmed that if the tools are user friendly and technological issues averted, it will make for more effective use of online survey.

Other solutions given by respondents include: enhancement of response rate to online survey, provision for funding of research in Nigeria. This will enable researchers subscribe to the tools, procure appropriate devices, provide incentives for participants in survey, and regular access to the internet.

Table 7 revealed the solutions to enhance optimal usage and adoption of online survey tools

**Table 7: Solutions towards optimal use of online survey tools**

s/n	Solutions to effective online survey tools	No	Yes	$\bar{x}$
1	Make the survey very short	11(13.8%)	69(86.3%)	0.86
2	More awareness and training on online survey	17(21.3%)	63(78.8%)	0.79
3	Assure the participants of the confidentiality of their responses	18(22.5%)	62(77.5%)	0.78
4	Make use of population that is more likely to have interest in the research	20(25.0%)	60(75.0%)	0.75
5	Give time limit to complete the survey	20(25.0%)	60(75.0%)	0.75
6	Make use of reminders	20(25.0%)	60(75.0%)	0.75
7	Use clear and unambiguous language	22(27.5%)	58(72.5%)	0.73
8	Personalize invitations to participate in the study	25(31.3%)	55(68.8%)	0.69
9	Make use of multiple contacts of respondents (e.g. email and WhatsApp)	27(33.8%)	53(66.3%)	0.66
10	Consider incentive for completing the survey	28(35.0%)	52(65.0%)	0.65
11	Request assistance of an authority/known figures, to distribute the survey	34(42.5%)	46(57.5%)	0.58

Table 7 shows the general solution to effective use of online survey tools. Making survey very short, was accepted by most of the respondents 69(86.3%) as a major solutions to effective use of online survey tools, and was followed in succession by more awareness and training on online survey, 63(78.8%). Again 62(77.5%) of the participants opined that ensuring confidentiality of participants' responses will also enhance response rate, while 60(75.0%) of the respondents respectively where of the view that using the appropriate target population, giving time limit for the completion of survey and the use of reminder will propel target group to participate in surveys. Others include the use of unambiguous language, using multiple contacts of respondents which were identified by 58(72.5%) and 53(66.3%) persons respectively.

Finally, the need to consider incentive for the completion of the survey, request for assistance of an authority figures in the distribution of the survey which were acknowledged by 52(65.0%) and

46(57.5%) respectively will further enhance the response rate thereby accelerating adoption of online survey tools.

## DISCUSSIONS

The study identified that only four online survey tools have ever been used by the respondents, which are Survey Monkey, Question PRO, Survey PRO and Zoomrang. While most of the researchers (67%) have never used online survey tools at all for research. This shows that there is a very slow speed of adoption of online survey tools by researchers in Nigeria. From the findings, inadequate technical knowledge on the technology is a major challenge to the adoption of online survey tools by researchers in Nigeria. Most of the respondents ascertained that they do not have understanding on the procedures for setting up the tools. The researchers' zeal towards the use of the tools is usually handicapped by inadequate technical skills and training on the effective use of the tools. Efforts need to be channeled appropriately towards advocacy programmes and training of researchers in Nigeria on the various types of research tools available, the enormous benefits derived from their usage and the procedural skills on effective use of the tools.

Poor access to the internet and other cutting edge facilities is another inhibiting factor to the adoption of online survey tools by researchers in Nigeria. This is occasioned by poor funding of higher institutions in Nigeria, and quality research activities are resource intensive. Most often than not researchers in Nigeria tend to resort to private resources to fund their research, this however has adverse effect on the quality and quantity of research output in the country, considering the meagre income of academics in Nigeria. Funding allocation should be more prioritized towards educational activities of which research plays a key role, and the existing institutional funding need to be well distributed to cater adequately for research in the nation. Again, the low response rate characterized of online survey is a strong limiting factor to the growing use of online research tools in Nigeria. It does not make sense for a researcher to invest time, money and other valuable resources into a survey, only to reap very low unappreciable response rate. Therefore improving on response rate of online survey will invariably improve the adoption of online survey tools by researchers.

To improve the response rate, the study advocated that there should be more sensitization created on online survey, including the gains derived by both the researcher and the respondents. If participants are aware that each survey they participate in will not only add to their scope of knowledge (which can help in resolving some of their future problems) but will invariably add value towards the advancement of the nation which they will become beneficiaries, they will not hesitate to respond to research surveys whether online or physical.

Furthermore, researchers in Nigeria need to make their survey very short to attract more respondents. Many research questions created by academics in Nigeria are reportedly very lengthy; this makes it difficult for many of the proposed respondents to endure the stress of responding to the questions. Even some who dare to start may not continue due to time and other resource constraints.



Finally, the insurance of confidentiality of participants responses, the use of appropriate target population, giving time limit for the completion of the survey, usage of reminder, as well as the use of unambiguous language in survey drafting, and multiple contacts of respondents for the communication of the survey amongst others will in no small measure enhance response rate there by uplifting the adoption and effectiveness of online survey tools. These are in line with literature. For instance, Dillman, 2007; Liu & Wronski, 2017 and Porter, 2004b posited that the relevance of the topic to the respondents and the length of survey are also a major factor in the response rate for any survey

## CONCLUSION

The adoption of online survey tools has been very slow in Nigeria. The major factors inhibiting the adoption of online survey tools by researchers in Nigeria are inadequate knowledge and technical know-how on the technology, low response rate characterized of online survey, poor access to the internet and other cutting edge facilities occasioned by poor funding, and the surveys' design issues. Solutions towards a speedy adoption of online survey tools by researchers in Nigeria center on advocacy programmes/trainings especially within the campuses in Nigeria, on the survey tools. Again, making the tools more user friendly by the designers, provision of adequate funding of research in Nigeria as well as enhancing response rate of online survey will facilitate the adoption rate of online survey tools by researchers.

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