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ENVIRONMENTAL FACTORS AND SURVEY RESEARCH IN DEVELOPING COUNTRIES: EVIDENCE FROM NIGERIA

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ABSTRACT

Survey research is relevant and appropriate for problem identification and provision of objective explanations to hidden phenomena of interest to researchers. Despite the preference for surveys by researchers in the fields of social sciences, management and educational management, it is a research strategy that is confronted by a number of environmental factors. The present study examines the impact of these factors on surveys in Nigeria using a quantitative method. The required data were collected using a survey evaluation instrument (SEI) which contained 33 items. The sample size of 250 lecturers, researchers and students was selected from the target population using a purposive sampling technique. The generated data were analyzed using descriptive and inferential statistics on the basis of which informed conclusions were drawn. The findings indicate that surveys are hindered by low literacy level of respondents, multiplicity of ethnic groups/languages, respondents' inability of respondents to answer survey questions appropriately, incidences of misleading responses and several other environmental factors. The paper concludes that if the observed environmental factors are substantially redressed, survey research in Nigeria would be greatly enriched and the research findings therefrom would be better fortified.

Keywords: Developing Countries, Environmental Factors, Nigeria, Survey Research

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INTRODUCTION

Survey is a widely-used strategy for gathering data for academic and industry-based research across the globe. Adoption of survey as a research strategy offers researchers comprehensive data and rich field information for problem-solving (Denscombe, 1998; Kennedy and Vargus, 2001; Sweeney, 2009). However, surveys in the forms of interviews, questionnaires, panels et cetera are hindered by a number of environmental factors identified by researchers as low literacy level of respondents, non-cooperation, non-response, interviewers' effects, multiplicity of languages, respondent's inability to answer questions appropriately and incidences of misleading responses (Watson and Wooden, 2009). The above-mentioned inhibiting factors are not limited to developing nations, the same trends had manifested several years back in the developed nations, where surveys are more advanced. It is therefore a global phenomenon (The International Conference on Survey Nonresponse, 1999; Kennedy and Vargus, 2001; Gannon-Leary *et al.*, 2002). Even the website-enabled or technology-aided surveys are not free from environmental challenges, some of which include: constraints of proper configuration of browsers, the right operating systems, reliability of internet service providers, correct hardware, and the correct routers requires for the website as well as expertise to design the web survey (Gannon-Leary *et al.*, 2002). The backlashes of surveys as enunciated above have become major concerns for academic researchers. Kennedy and Vargus (2001:483) lament:

> *"Survey research is currently experiencing significant challenges that have important implications for both the method and its use.... Survey participation is declining, and this trend is likely to continue. Some causes may be cultural... a decrease in civic engagement...some causes may be more practical...increased telemarketing and fundraising telephone calls and letters that confuse potential survey participants."*

Beyond the highlighted factors, other common factors inhibiting surveys include peculiar nature of survey strategy, diverse modes of survey, proliferation of surveys and preference for self-administered survey, emergence of computer-aided questionnaires, discouraging length of questionnaire and vague survey questions leading to cognitive burden, non-response, rising cost of surveys, limited financial resources, lack of cooperation from participants and poor response rate (The International Conference on Survey Nonresponse, 1999; Kennedy and Vargus, 2001; Gannon-Leary *et al*., 2002). From all the factors listed above, the challenge of poor response rate is considered a very serious threat; it is as low as 20% in some surveys to as high as 75% depending on the target group and the survey content (The International Conference on Survey Nonresponse, 1999).

Furthermore, Gannon-Leary *et al*., (2002) confirmed the seriousness of the phenomenon of non-response and its impact on surveys in their operations research; they had great difficulty administering questionnaires to students. After series of trials and deployment of different techniques, they succeeded in sending questionnaires to student respondents using electronic mail, direct posting of questionnaires into students' pigeonholes, direct contact with students in their rooms and visit to departmental common rooms.

In view of the foregoing, this exploratory paper investigates the environmental factors affecting survey research in developing countries with special reference to Nigeria. The paper is structured into five parts. Part I gives an introductory background on the research problem. Part II is dedicated to review of literature with emphasis on definitions, types, merits and demerits of surveys (interview and questionnaire techniques). Part III provides theoretical and empirical issues, methodology and research hypotheses. Part IV is devoted to results and findings. Part V concludes with the implication of the findings in theory and practice as well as recommendations.

REVIEW OF LITERATURE

Conceptual Issues and Survey Typologies

For better clarity, there is a need to discuss the meaning, scope and types of survey found in research methodology. According to Saunders *et al.* (2012:177), survey is one of the common strategies use in exploratory and descriptive investigation. It is found to be potent in providing answer to inquiry into "what', who', where', 'how much' and how many questions." However, Denscombe (2010) stated that when a social phenomenon is surveyed by field researcher, the implication is that the object of research is thoroughly investigated and explored for the purpose of collecting meaningful and informed data/information. From the definitions above, scholars cautioned that when developing a research design, survey is not a research method but a research strategy among several other competing strategies such as experiments, case study, ethnography, archival et cetera (Denscombe, 2010; Saunders *et al.*, 2012).

Moreover, there are two typologies of survey, namely: interview-based and questionnaire-based surveys (Babbie, 2010; Saunders *et al.*, 2007; Saunders *et al.*, 2012). Interview or Interview-based survey is a qualitative research technique which involves asking the sampled respondents questions for the purpose of collecting data and useful information 'on a particular idea, program or situation" (Boyce and Neale, 2006:.3). However, Babbie (2004), O'Leary (2004) and Saunders *et al*. (2012) remarked that interviews can be divided into three sub-typologies: unstructured, structured and semi-structured interviews.

Questionnaire-based survey on the other hand is an age-long primary data gathering instrument administered by field researchers to respondents/participants with clear instructions to respond to structured questions by ticking, ranking or rating the most appropriate option of their choice. According to Brace (2008), a questionnaire-based survey provides a communication medium for researchers and their respondents to interact. There are several typologies of questionnaires, viz: open-ended questionnaire, closed-ended questionnaire, self-completed questionnaires, researcher-administered questionnaire, Computer-aided questionnaire, Telephone questionnaire, In-house survey questionnaire; Mail Questionnaire (Collis and Hussey, 2003; Saunders, 1997; Babbie, 2004; Monette *et al.*, 2005; Descombe, 2010).

Historically, the interview-based survey was adopted from clinical psychology and psychiatry and has since emerged as a widely adopted method in qualitative research (Bryman, 2008; Sweeney, 2009). Interviews could be purely structured interview, semi-structured interview and unstructured interview as mentioned earlier (Bryman, 2008; Sweeney, 2009; Saunders *et al.*, 1997; Saunders *et al.*, 2012). However, the use of semi-structured interviews is more potent for eliciting vital information on phenomenal issues that are under-researched (Sweeney, 2009). Researchers are at liberty to pick from any of the three typologies after a critical review of the nature of their research design.

Irrespective of the type of interview chosen, an interview offers a number of merits in qualitative research. First and foremost, an interview-based survey provides researcher with the leeway to conduct investigation deeply following a systematic line of action without deviation (Bell, 1999; Denscombe, 1998; Birn, 2000). Where deviation surfaces, interview enables researchers make spontaneous amendment, re- adjustments and re-direction of the line of investigation (Denscombe, 1998). Consequently, the information, data and insights arising from interview are usually very rich in content and comprehensive for research purposes (Denscombe, 1998; Birn, 2000; Sweeney, 2009). More importantly, where formal access is sought and granted, interviews often enhance high response rate from target respondents (Denscombe, 1998; Saunders *et al.*, 2012).

Despite the inherent merits of interviews as clearly enunciated above, interviews have some obvious disadvantages. The first is the laborious nature of interview technique for research when viewed in terms of time invested, financial resources, long travels, continuous/repetitive discussion with people of different background and idiosyncrasies (Bailey, 1982; Denscombe, 1998; Denscombe, 2010; Sweeney, 2009; Saunders *et al.*, 2012). Secondly, where access is turned down by interviewees, the response rate would be low thereby compromising research objective because of inadequate sample that is statistically unrepresentative of the target population (Bell,

1999). Other disadvantages of interview are subjectivity issue, bias, difficulty in transcribing recorded interviews, matching respondents' opinions to establish patterns/line of thought and challenges of data analysis and data presentation as research findings in meaningful way (Bell, 1999; Saunders *et al*., 2012).

THEORETICAL AND EMPIRICAL ISSUES ON SURVEYS

This paper derives its theoretical underpinning from four related communication theories, namely: Hermeneutics theory (HT), Agenda-setting theory (AST), Symbolic interactionism theory (SIT), and Social judgment theory (SJT). These theories explain social interaction between two parties (sender and receiver) as well as the medium used for communication. In this paper, the two parties focused on are researchers and respondents.

Hermeneutics can be described as the creative method and professional style of interpreting written texts, words, symbols and other classical writings across all fields. HT covers in-depth interpretations of terms like assumptions, presuppositions, pre-understanding, signals, manner of reporting, contents of report, semiotic, coded computer languages and philosophical nuances beyond the comprehension of ordinary members of the public (Duvall and Hays, 2001; Kaiser and Silva, 2007). In the anthropological literature, there are traditional and contemporary hermeneutics. The traditional hermeneutics focuses on interpretations of ancient manuscripts especially coded religious scriptures, while the contemporary is more embracing, as it entails interpretations of all forms of verbal and non-verbal communication in qualitative research (Ferguson *et al.,* 1988; Jeanrond, 1994; Duvall and Hays, 2001). From the research viewpoint, hermeneutics is concerned with the interpretation of field data and raw information generated via interview and structured questionnaires for the purpose of making meaning out of them and drawing conclusions on the subject of discussion. Put differently, the method of qualitative data transcription, content analysis and extraction of meaning from data are the domain of hermeneutics.

The second strand of communication theory is agenda setting theory (AST), which is constructed on the foundation that the media (in this case researcher) set agenda and frame the minds of the public (respondents) through information/messages/ideas disseminated to the society when conducting surveys. In order words, "the media tell us what to think about, and how to think about it" under the pretext of communication (McCombs and Reynolds, 2002:1-16). When applied strictly to surveys, agenda setting theory presumes that structured interview questions and contents of questionnaires are mechanisms designed by researchers to set agenda for the

respondents. The views of the respondents are framed for them by researchers through leading questions; hence quantitative data and qualitative information generated may not really represent the genuine viewpoints and idiosyncrasies of the respondents.

The third communication theory is symbolic interactionism theory (SIT). It is a theory designed for understanding the process of information dissemination between individuals, groups or organizations (often described as senders and receivers of messages within the communication channel), as well as interpreting words/messages/signs (otherwise called verbal and non-verbal communication) that transpired between individuals and groups in their social interaction. In social interactionism, the theory provides meaningful interpretations to conversational relationship between senders (as researchers) and receivers (respondents) in terms of meanings of the messages sent by the senders and the feedbacks/responses relayed back by the receivers at the other end of the communication continuum (Herman-Kinney and Reynolds, 2003; Griffin, 2012). When structured interview questions and questionnaire items are vague and incomprehensible, the tendency is for the respondents to relay back incomplete feedbacks, non-response or misleading responses.

The fourth communication theory is social judgment theory (SJT). According to Doherty and Kurz (1996), SJT evolved from functionalism and probabilism of Egon Brunswik and was initially developed for making judgment and decision for problem-solving. SIJ employed perception, insight, thinking and reasoning before passing judgment on social issues. When applied to survey research, SJT asserts that in any form of interpersonal or organizational communication (carried out through interview or questionnaire instruments), there tends to be noticeable difference/discrepancy in sender's viewpoint (researcher's viewpoint) and those of the receiver (respondent's position) because of the influence of attitude/ego/perception/insights, which are factors that are susceptible to environmental changes. The higher the ego-involvement in communication, the higher degree of rejection of the message by the receivers (respondents), while the lower the ego-involvement, the higher the degree of acceptance of the message by the receivers (respondents). In SIJ, acceptance or rejection of messages (conveyed through interview and questionnaires) is conditioned by the behavioural insights of the receivers of information within the social or organizational context (Griffin, 2012).

In conclusion, the communication theories presume that environmental factors affecting surveys are similar to noises/disturbance in the communication process. The poplar communication model of Shannon (1948) was designed to isolate the impact of these noises (otherwise called external disturbances, interference or distortions) on communication signals (messages). His "Schematic diagram of a general communication system" is adopted widely by scholars across academic

fields to explain the relationship between senders and receivers of messages, the significance of feedbacks and the effects of noises in the communication process (Shannon 1948:1-2). It could be stated with reasonable level of confidence that communication theories as argued above are relevant for explaining environmental factors affecting research surveys. The figure 1 below depicts the conceptual and theoretical framework of this research.

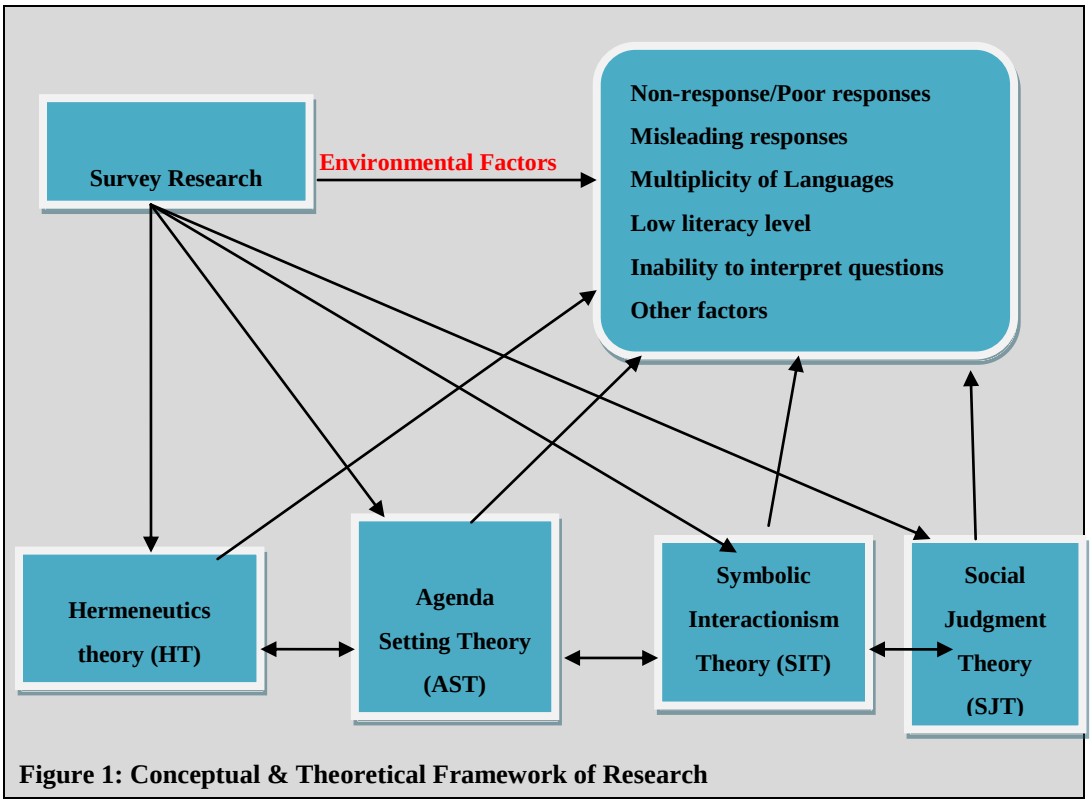

Figure 1: Conceptual & Theoretical Framework of Research

Empirical Issues Facing Surveys

Non-Response and Attrition Factors

Effectiveness of survey is marred by the challenge of non-response from respondents, but longitudinal surveys suffer a more complex challenge of sustained non-responses during repeated process of prolonged longitudinal interviews, a phenomenon tagged attrition by researchers with survey orientation (Al-Hazemi, (2000; Eysenbach, 2005). Several years back Laurie, Smith and Scott (1999) reported that longitudinal surveys are inhibited by the challenge of tracking respondents due to relocations and fatigue of repetitive surveys. The apathy or unwillingness of respondents to partake in subsequent longitudinal survey is pronounced in most household panel surveys. The Panel Study of Income Dynamics (PSID) lost over one-quarter of sample

respondents between 1968 and 1975; the German Socio-Economic Panel and the British Household Panel Survey (BHPS) similarly lost at least 34 per cent of their original sample respondents in the initial locations (Watson and Wooden, 2009). Attrition is not restricted to loss of respondents in surveys; it is a phenomenon which extends to loss of languages by speakers when foreign languages are adopted or studied by learners (Al-Hazemi, 2000).

Even in the health-oriented research, the phenomenon of attrition is rampant. In two surveys reported by Eysenbach (2005), it was discovered that out of 1161 participants that agreed to partake in a 12-week Internet-based evaluation of a panic disorder self-help Web program, only12 participants (approximately 1%) eventually completed the survey. In the second, the survey was to run under 5 modules, out of 182 participants that started the depression programme, only 41 participants (22.5%) completed the 5 modules. These surveys confirmed the phenomenon on non-response due to attrition.

In summary, the challenge of non-response in panel and longitudinal surveys is caused by difficulty in locating former respondents, contacting the respondents, eliciting cooperation from the respondents. The impact of non-response and attrition include reduction of the precision of survey estimates, threats to viability of sustained panel data, creation of bias/subjectivity about population estimates ((Watson and Wooden, 2009). On the strength of the foregoing, it could be hypothesized under two tail test that;

H_0*: Inappropriate responses from respondents do not significantly impact on the outcomes of research surveys.*

Interviewer Effects: Personal and Household Characteristics

Research studies identified core environmental challenges of surveys as interviewer effects (IEs). IEs are chain of personal and household factors which make or mare survey outcomes. IEs include age of respondents, privacy, experiences in surveys, sex, education, income level, attitudes and degree of confidence placed in the surveys (Groves and Couper, 1998; Martin and Beerten, 1999; Watson and Wooden, 2009). Surveys that seek to elicit information from respondents on personal, confidential or private affairs (e.g. sexual life, finances and psychiatric issues) have suffer from certain degree of inhibitions linked to " varying degrees of social, cultural, religious, moral and legal norms and constraints" (Fenton *et al.*, 2001:84). Consequent upon these constraints, surveys constrained by participation biases, non-response/poor response rate, recalls to collect responses, unwillingness/attrition, comprehension problems, censored attitudes and measurement errors when issues being investigated are behavioural activity like sexually transmitted diseases (Ibid.) With regards to gender status however, a number of studies have established that sex status impact on response rate for household surveys (Watson and

Wooden, 2009). For women, earlier studies reported that response rates higher among women than men, that is, the phenomenon of attrition is lower among women because most of them stay at home than men, even where prior consents are sought (Watson and Wooden, 2009). Considering the potent impact of Interviewer Effects, it could be hypothesized under two-tail test that;

H_0: Misleading responses from respondents does not significantly impact on the outcomes of research surveys.

Respondents' Experiences, Exposures, Language and literacy level

Another environmental factor affecting surveys is respondents' education, experience and exposures to surveys. The level of educational attainment is believed would impact positively on survey response because informed respondents have sufficient experience on survey questions and expectations (Watson and Wooden, 2009). It is therefore not surprising that respondents with higher level of education partake and appreciate the activities associated with research surveys (Groves and Couper, 1998). The impact of experience is like education, because people with robust experience about surveys are often willing to accept interviews as well as heed to persuasion to fill any type of questionnaires, while people without experience and exposure on surveys often turn down survey invitations (Watson and Wooden, 2009). Previous research findings established that respondents with good experience tend to manifest predictive cooperation for surveys (Lepkowski and Couper, 2002; Olsen, 2005). However, respondents with little or no experience would not been competent enough to provide adequate information desired in surveys, hence the incidences of missing data, non-response and misleading responses (Loosveldt *et al.* 2002).

Furthermore, effective use of language communication for interviews has been discovered to enhance willingness to partake in surveys thus increasing participation rate (Fenton et al., 2001). Similarly, for questionnaire-based survey the "design, content, and mode of administration" have been reported to have positive or negative impact on outcome of survey or what is called measurement error. With regards to literacy, Fenton et al., (2001) noted that questionnaire-based survey or 'Pen and paper methods' have greater likelihood of excluding less literate potential respondents thereby culminating into poor data quality as a result of non-response, missing data and gathering of inconsistent survey responses. From the forgoing empirical studies, two hypotheses have emerged. These are:

H_0: Literacy level of respondents does not significantly impact on the outcomes of research surveys.

H_0: Multiplicity of Ethnic Groups/Languages of respondents does not significantly impact on the outcomes of questionnaire design.

MATERIALS AND METHOD

This paper adopts quantitative research methods. The population of this research is lecturers/researchers with survey-orientation from universities, colleges of education, polytechnics and independent research institutions. The sampling location is Lagos State which is a commercial beehive of Nigeria. The required data were collected using a survey evaluation instrument (SEI) which contained 33 items. The sample size of 250 lecturers, researchers and students was selected from the target population using a purposive sampling technique (Descombe, 2012). The generated data were analyzed using descriptive and inferential statistics on the basis of which informed conclusions on environmental factors were made. This approach aligns with the best practice in survey-based research method in management sciences (Sweeney, 2009; Howitt and Cramer, 2010; Saunders *et al*., 2012).

RESULTS AND FINDINGS

The response rate from this survey is average. From a total of 250 questionnaires administered to cross-section of lecturers/researchers/students, a total of 136 questionnaires were returned after a period of two months with consistent follow-ups on email, personal contact and phone calls. The response rate was 54.4%. The reliability test was conducted to test if the 33 questions in the questionnaire instrument actually measured what it was intended to measure. The Cronbach Alpha based on standardised items indicated a magnitude of 0.656; an indication that the reliability condition is satisfactory. The findings arising from the survey as well as the outcomes of four tested hypotheses are as tabulated and discussed below.

Table 1: Demographic profiles of respondents

Status of respondent	Percentage %
Lecturer in the University	22.8%
Lecturer in the Polytechnic	22.1%
Lecturer in the College of Education	10.3%
Researcher in the industry	7.4%
Student researcher	37.5%
Total	**100**
Sex of respondent	
Male	61%
Female	39%
Total	**100**
Research Orientation	
Qualitative Method	12.5%
Quantitative Method	22.1%

Mixed Method	65.4%
Total	**100**
Age of respondent	
21-30 years	44.1%
31-40 years	31.6%
41-50 years	23.5%
51-60 years	0.7%
Total	**100**
Marital Status of respondent	
Single	39.7%
Married	51.4%
Widow	8.8%
Total	**100**
Educational Qualifications	
Bachelor Degree	18.4%
Master Degree	40.4%
Doctoral Degree	13.2%
Others	27.9%
Total	**100**
Survey Experience	
0-5 years	27.9%
6-10 years	39%
11-15 years	12.5%
16-20 years	10.3%
21 years and above	10.3%
Total	**100**

Table 1 highlights the demographics of the survey. Lecturers from the university that partook in the survey were 22.8%, while those from polytechnics and colleges of education were 22.1% and 10.3% respectively. The researchers in the industry are 7.4% and student researchers are 37.5%. On gender participation, 61% of the respondents were males, while 39% were females. From the demographics, 65.4% of the respondents indicated that they have mixed method research orientation, 22.1% reported that they use quantitative method and 12.5% indicated that that they use qualitative method. Also noteworthy is the survey experience of respondents. 27.9% of the respondents have at least 5 years survey experiences, while those with 6-10 years, 11-15 years, 16-20 years and above 21 years experiences were 39%, 12.5%, 10.3% and 10.3% respectively.

Table 2: Nature of surveys in academic research

SN	Strongly Agree (SA), Agree (A), Neither Agree nor Disagree (N) Disagree (D) and Strongly Disagree (SD)	**SA**	**A**	**N**	**D**	**SD**
1.	Surveys are often relevant where secondary data on phenomenon being investigated are unavailable or unsuitable.	19.9%	52.9%	11.8%	14.7%	0.7%
2.	Surveys provide actual field interaction with the respondents targeted for a research programme.	39.7%	48.5%	1.5%	10.3%	0%
3.	Surveys allow collection of specific data/information on issues being investigated as opposed to generalised socio-economic data.	38.2%	50.0%	7.4%	4.4%	0%

4.	Surveys allow researchers to collect quantitative data which can be analysed quantitatively using descriptive and inferential statistics.	49.3%	41.2%	5.1%	3.7%	0.7%

Table 2 reflects satisfactory findings on nature of survey in developing countries. A total of 72.8% of the respondents reported that surveys are relevant where secondary data on phenomenon being investigated are unavailable or unsuitable. Another finding indicated that 88.2% agreed that surveys provide actual field interaction with target respondents. Moreover, 88.2% of the respondents agreed that surveys allow collection of specific data/information on issues being investigated, while 90.5% reported that surveys allow researchers to collect quantitative data which can be analysed quantitatively using descriptive and inferential statistics.

Table 3: Impact of Literacy level on surveys

SN	Strongly Agree (SA), Agree (A), Neither Agree nor Disagree (N) Disagree (D) and Strongly Disagree (SD)	**SA**	**A**	**N**	**D**	**SD**
1.	The use of survey is often hindered by low literacy level of respondents.	39.0%	49.3%	6.6%	3.7%	1.5%
2	Surveys are often biased in favour of literate respondents in sample location.	20.6%	30.9%	27.2%	17.6%	3.6%
3.	Most research uses written questionnaires for survey because of the convenience of data gathering.	33.1%	50%	5.1%	2.2%	9.6%
4.	Most written questionnaires designed for survey are administered to the literate members of the target population in order to boost response rate.	25.7%	51.5%	15.4%	4.4%	2.9%
5.	Surveying illiterate members of the target population may result in researchers putting words in the mouth of respondents, thus leading to bias or subjectivity	10.3%	64.7%	5.9%	18.4%	0.7%

Table 3 presents the findings on impact of literacy on survey. A total of 88.3% answered in the affirmative stating that literacy level affect outcome of survey from their survey experience. Whereas, 83.1% agreed that most research uses written questionnaires for survey because of the convenience of data gathering. And, 77.2% are of the view that questionnaires designed for survey are administered to the literate members of the target population in order to boost response rate.

Table 4: Impact of multiplicity of ethnic groups/languages on surveys

SN	Strongly Agree (SA), Agree (A), Neither Agree nor Disagree (N) Disagree (D) and Strongly Disagree (SD)	**SA**	**A**	**N**	**D**	**SD**
1.	The phenomenon of multiplicity of ethnic	25%	49.3%	3.7%	21.3%	0.7%

	groups/languages affects questionnaire design.					
2.	The problem of language excludes many potential respondents from participation in surveys.	14%	48.5%	24.3%	12.5%	0.7%
3	Researchers adopt English language as the preferred language for questionnaire design.	44.9%	50.7%	1.5%	2.2%	0.7%
4.	Researchers conduct interviews in English to avoid the challenge of multiplicity of ethnic groups.	27.9%	52.9%	15.4%	2.9%	0.7%
5.	In academic, researcher's choice of English language for surveys (interviews and questionnaire) enhances information coding/transcription, data analysis and presentation.	29.4%	57.4%	2.9%	2.2%	8.1%
6	For non-academic surveys targeted at sourcing data on socio-cultural practices of local population, researchers make use of local languages.	19.1%	54.4%	15.4%	9.6%	1.5%

Table 4 revealed some key findings on the impact of multiplicity of ethnic groups/languages on surveys. In the first instance, 74.3% of the respondents affirmed that the phenomenon of multiplicity of ethnic groups/languages affects questionnaire design. Another 62.5% of the respondents felt that the problem of language excludes many potential respondents from participation in surveys. However, 95.8% are of the respondents noted that researchers conduct interviews in English to avoid the challenge of multiplicity of ethnic groups. In conclusion, 86.8% maintained that the researcher's choice of English language for surveys (interviews and

SN	Strongly Agree (SA), Agree (A), Neither Agree nor Disagree (N) Disagree (D) and Strongly Disagree (SD)	**SA**	**A**	**N**	**D**	**SD**
1.	Respondent's inability to answer questions correctly could be due to improper framing of research questionnaire and interview questions.	36.8%	44.9%	14.7%	3.7%	0.0%
2	Inappropriate/low responses to surveys could be deliberate due to apathy and suspicion for the	23.5%	44.9%	22.1%	8.8%	0.7%

Questionnaire) enhances information coding/transcription, data analysis and quality of presentation of research outcome.

	research.					
3.	Inappropriate responses to surveys could be as a result of hastiness and time constraints of the respondents.	12.5%	61.8%	14.7%	3.7%	7.4%
4.	Respondent's inability to answer questions correctly could be due to the sensitivity of the matter being surveyed.	15.4%	57.4%	15.4%	3.7%	8.1%

Table 5: Impact of inappropriate responses on surveys

Table 5 had four key findings on the impact of inappropriate responses on surveys. The first is that 81.7% of the respondents are of the view that respondent's inability to answer questions correctly is traceable improper framing of research questionnaire and interview questions. Secondly, 68.4% of the respondents stated that inappropriate/low responses to surveys could be deliberate due to apathy and suspicion for the research. Furthermore, 74.3% of the respondents attributed to inappropriate responses from surveys to hastiness and time constraints of the respondents. Lastly, 72.8% of the respondents reported that inappropriate responses from survey could be due to the sensitivity of the matter being surveyed.

Table 6: Impact of misleading responses on surveys

SN	Strongly Agree (SA), Agree (A), Neither Agree nor Disagree (N) Disagree (D) and Strongly Disagree (SD)	**SA**	**A**	**N**	**D**	**SD**
1.	The incidences of misleading responses affect the reliability and outcome of research findings.	44.1%	45.6%	3.7%	4.4%	2.2%
2.	Misleading responses arises where respondents are coerced to partake in the research.	19.9%	43.4%	32.4%	1.5%	2.9%
3	Misleading responses could be traceable to improper framing of research questions in structured questionnaire and interview schedule.	25.7%	36.8%	20.6%	15.4%	1.5%
4.	The incidence of misleading responses is common with surveys probing into personal matters like incomes, sexual orientations, party affiliations, religious ideologies and other sensitive profiles.	19.1%	52.9%	8.8%	16.9%	2.2%
5.	Public servants provide misleading responses for fear of being accused of leaking confidential information to researchers.	19.9%	61.0%	7.4%	9.6%	2.2%
6.	Corporate organisations provide misleading question for fear of competitors.	23.5%	46.3%	23.5%	5.1%	1.5%
7.	Misleading responses are traceable to the concern to preserve confidentiality.	24.3%	33.1%	30.9%	8.8%	2.9%

Table 6 presents seven major findings on the impact of misleading responses on surveys. The foremost indicates that 89.7% reported that incidences of misleading responses affect the reliability and outcome of research findings, while the others disagreed. The second reveals that 63.3% of the respondents agreed that coercion leads misleading responses. 62.6% respondents

opined that misleading responses arising from surveys could be traceable to improper framing of research questions in structured questionnaire and interview schedule. The third finding shows that 72% respondents agreed that the incidence of misleading responses is common with surveys probing into personal matters like incomes, sexual orientations, party affiliations, religious ideologies and other sensitive profiles. Next, 80.9% of the respondents are of the view that public servants provide misleading responses for fear of being accused of leaking confidential information to researchers. The sixth finding indicates that 69.8% of the respondents report that corporate organisations provide misleading question for fear of competitors. Finally, 57.4% of the respondents attribute additional source of misleading survey responses to concern to preserve confidentiality.

Table 7: Results of the Hypotheses

SN	Hypothesis Statements	Df and Level of Sig.	Chi square and P-Value	Decision
1.	Literacy level of respondents does not significantly impact on the outcomes of research surveys.	16(5%)	29.828 (0.0190)	Reject
2.	Multiplicity of Ethnic Groups/Languages of respondents does not significantly impact on outcomes of questionnaire design.	16(5%	48.832 (0.000)	Reject
3.	Inappropriate responses from respondents do not significantly impact on the outcomes of research surveys.	12(5%)	27.621 (0.006)	Reject
4.	Misleading responses from respondents does not significantly impact on the outcomes of research surveys.	16(5%)	64.284(0.000)	Reject

From table 7 above, all the four (4) null hypotheses were rejected at 5% level of significance. Detailed discussion is provided hereunder.

For hypothesis 1, the p-value = (0.019). Since p-value = 0.019 < 0.05, we reject the null hypothesis and accept the alternative hypothesis that literacy level of respondents significantly impact on the outcomes of research surveys.

Also, hypothesis 2 has a p-value = 0.000. Since p-value = 0.000 < 0.05, we reject the null hypothesis and accept the alternative hypothesis that multiplicity of ethnic groups/languages of respondents significantly impact on outcomes of questionnaire design.

Hypothesis 3 has a p-value =0.006 and since p-value = 0.006 < 0.05, we reject the null hypothesis and accept the alternative hypothesis that inappropriate responses from respondents significantly impact on the outcomes of research surveys.

In conclusion, hypothesis 4 has p-value =0.000. Like previous hypotheses, it p-value =0.000 < 0.05, we reject the null hypothesis and accept the alternative hypothesis that misleading responses from respondents significantly impact on the outcomes of research surveys.

CONCLUSION AND RECOMMENDATIONS

The thrust of this research is to explore the environmental factors facing surveys in developing nation. The adoption of survey in conducting academic research was firmly established in developing countries using available empirical evidences in Nigeria due to the inevitability of secondary data in academic research work but its effectiveness was threatened with some observable environmental challenges such as literacy level of respondents and the multiplicity of the ethnic groups and diversity in languages which resulted into inappropriate and misleading responses on the outcome of the surveys. Four communication theories (hermeneutics, agenda setting theory, symbolic interactionism and social judgement theory) are found useful in explaining the identified environmental factors. The inferential statistics established a total rejection of all the four null hypotheses tested in this study, thus affirming the alternative hypotheses hence the following recommendations were made which in the opinion of the researchers can fortified the use of survey method for academic research in developing countries:

1. The population for survey should be properly segmented to determine the choice of language to be adopted in conducting the research work and thus reduce the literacy factor as part of environmental challenges facing survey research in developing countries.

2. There is need for public institutions and corporate organisations to accord researchers the desired attention and support when undertaking surveys because the social-economic benefits arising from research surveys impact on economic growth and academic development. The freedom of information bill (FOB) before the National Assembly is welcome development. This legislation when operational would provide safety net for both respondents and researchers thereby providing more access to data for economic and academic development in Nigeria.

3. To encourage institutional participation, an award system should be institutionalized by the Government of developing countries for individual and corporate organizations that are supporting or promoting survey research for the advancement of academic work for sustainable growth and development which shall fast track the upward movement of developing countries to developed nations through qualitative research output.

4. Researchers are also encouraged to treat data collected from corporate organisations and government institutions with utmost confidentiality, as misuse of data/information by researchers is often advanced as reason for not granting access to researchers. The data protection Act as obtainable in United Kingdom is required in Nigeria to forestall misuse/abuse of data/information by researchers.

5. Researchers should pay serious attention to design and validation to structured questionnaire as well as proposed interview questions. This precaution is necessary to ensure that framed question-item in questionnaires and interview schedules measure what they are designed to measure. A well designed questionnaire/interview schedule should forestall non-response, poor response and misleading responses. In case of a questionnaire, a researcher could involve experts/specialists in the design of questionnaires at the operationalization phase and evaluation process.

6. To forestall non-response and inability of respondents to answer survey questions appropriately, that characterised surveys in Nigeria including the current research with 54.4% response rate. There is need for more sensitisation on the benefits of surveys for the society.

7. With regards to literacy level which hinders participation by some vital segment of the society most field surveys. The option of interviewer completed questionnaire should be explored to carry along those with low literacy level. Besides, a collaborative option involving scholars of languages could be explored. Multiplicity of languages should not be a basis for excluding vital segment of the society from surveys.

8. In addition, trained interpreters with proficiency in local languages (where and when desirable for survey research) should be recruited to eliminate the inappropriate and misleading responses which could be attributed to poor or misleading interpretation. More importantly, the official language of respective developing countries should be adopted as the preferred language for survey research for uniformity of report findings and implications on further research.

It is believed that if the observed environmental factors are substantially redressed, survey research in Nigeria would be greatly enriched and the research findings therefrom would be better fortified.

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