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Data Article

Nigeria's preparedness for internet of everything: A survey dataset from the work-force population

Adeyinka A. Adewale^{a,*}, Ayodotun S. Ibidunni^b,
Aderemi A. Atayero^a, Samuel N. John^a, Olatunji Okesola^c,
Roland R. Ominiabohs^a^a Department of Electrical and Information Engineering, Covenant University, Ota, Ogun State, Nigeria^b Department of Business Management, Covenant University, Ota, Ogun State, Nigeria^c Department of Computational Sciences, First Technical University, Ibadan, Oyo State, Nigeria

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ABSTRACT

The article presents statistical facts on Nigeria's preparedness for Internet of everything. Copies of structured questionnaire were administered to 163 workers in Lagos State. Using descriptive statistics and charts (bar chart and histogram), the paper revealed that most of the respondents are aware of the concept of internet of everything, perceive that Nigeria is prepared for an internet enabled society and already have devices that can help them access the internet from where they are. More so, the challenges of cost, modern technology and signal coverage pose to be the greatest areas that should be addressed in the drive for an internet enabled society in Nigeria.

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* Corresponding author.

E-mail address: ade.adewale@covenantuniversity.edu.ng (A.A. Adewale).

Value of the data

- The paper presented describe demographic attributes of the working force population in Nigeria, especially those in Lagos state. This could be used by other researchers [1].
- The paper describes the level of awareness of Nigerian population about the concept of Internet of Everything. Consequently, the statistical analysis could provide insights for other researchers and corporate organizations that want to invest on smart phones or devices [6,7].
- The paper showcases the perception of the Nigerian population about the availability, adequacy and sophistication of internet facilities in Nigeria. This can guide government and investors about policies and further actions [2,8].
- The paper allows other researchers to extend the statistical analysis.

1. Data

The facts and statistics presented in this paper were collected from selected work-force population in Lagos State, Nigeria. Descriptive statistics and graphs were used to demonstrate respondents' views on the preparedness of Nigeria for Internet of Everything (IoE) (See Tables 1 and 2).

Table 1

Specifications table.

Subject area	<i>Information Communication Technology, Technology Management, Economic Development</i>
More specific subject area	<i>Technology Management, Economy</i>
Type of data	<i>Table, figure</i>
How data was acquired	<i>Researcher made questionnaire analysis</i>
Data format	<i>Raw, analyzed, descriptive data</i>
Experimental factors	<ul style="list-style-type: none"> • <i>Samples consist of selected working force population in Lagos State, Nigeria.</i> • <i>In this paper, the preparedness of Nigeria for internet of everything (IoE) was examined.</i>
Experimental features	<i>Understanding the perceptions of Nigerian populace towards the nation's preparedness for internet of everything</i>
Data source location	<i>Selected work-force population in Lagos State, Nigeria</i>
Data accessibility	<i>Data is included in this article</i>
Related research article	<i>Augustus Ehiremen Ibhaze, Simeon O. Ajose, Aderemi A. Atayero, Francis E. Idachaba, "Developing Smart Cities Through Optimal Wireless Mobile Network", International Conference on Emerging Technologies and Innovation Business Practices for the Transformation of Societies (EmergiTech), August 2016 pp 38–42. IEEE Xplore, November 2016. https://doi.org/10.1109/EmergiTech.2016.7737322 [1].</i>

Table 2

Data of respondents based on gender.

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	109	66.9	66.9	66.9
	Female	54	33.1	33.1	100.0
	Total	163	100.0	100.0	

109 respondents who participated in the research are male, while the remaining 54 respondents are female.

Table 3

Marital status of respondents.

Marital Status		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	85	52.1	54.5	54.5
	Married	61	37.4	39.1	93.6
	Others	10	6.1	6.4	100.0
	Total	156	95.7	100.0	
Missing	System	7	4.3		
Total		163	100.0		

Table 3 above shows the gender distribution of respondents. 85 respondents (52.1%) are single, 61 (37.4%) respondents are married, 10 (6.1%) respondents are either divorced or widowed.

Table 4

Age distribution of respondents.

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25 years and below	32	19.6	19.9	19.9
	26–35 years	90	55.2	55.9	75.8
	36–45 years	25	15.3	15.5	91.3
	45 years and above	14	8.6	8.7	100.0
	Total	161	98.8	100.0	
Missing	System	2	1.2		
Total		163	100.0		

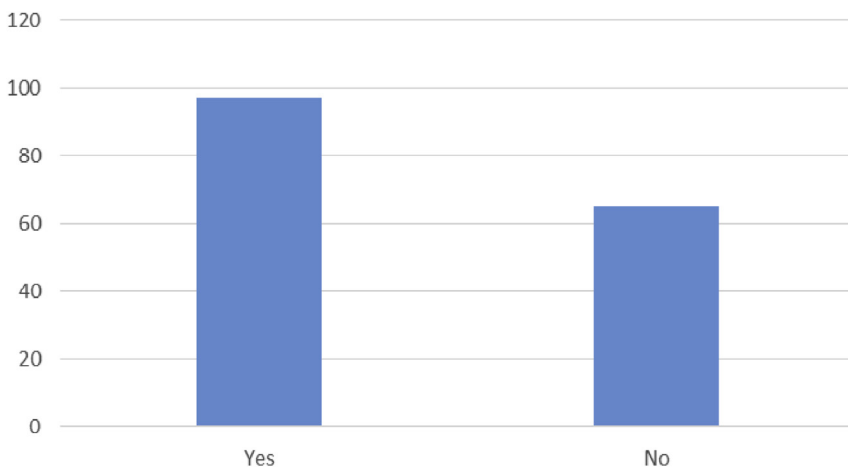
Table 4 above shows the age distribution of respondents. 32 respondents (19.6%) are 25 years and below, 90 (55.2%) respondents are from 26 to 35 years, 25 (15.3%) respondents are at least 36 years but not more than 45 years, and 14 (8.6%) respondents are from 45 years and above.

Table 5

Employment statistics.

Occupation/Employment status		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	44	27.0	27.2	27.2
	Unemployed	19	11.7	11.7	38.9
	Self employed	47	28.8	29.0	67.9
	Employed	52	31.9	32.1	100.0
	Total	162	99.4	100.0	
Missing	System	1	.6		
Total		163	100.0		

The respondents' occupation/employment status is shown in Table 5 above. 44 respondents (27%) are students, 19 respondents (11.7%) are unemployed, 47 respondents (28.8%) are self-employed, 52 respondents (31.9%) are employed.

**Fig. 1.** Awareness of IoE concept.

The graph in Fig. 1 shows the awareness of respondents about the concept of IoE. About 90 respondents are aware of the concept, while only about 63 respondents are not aware of the concept.

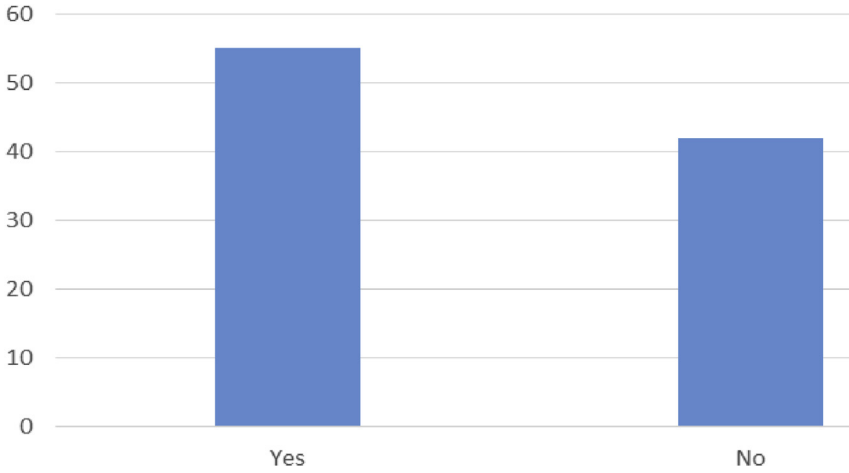


Fig. 2. Respondents' view on Nigeria's preparedness for IoE.

From the graph in Fig. 2 above, about 56 respondents argue that Nigeria is prepared to operate with IoE, while 41 respondents disagree to this claim.

Fig. 3 reveals the statistics of respondents who use or do not use smart phones/devices. This statistics represents the sample of populace who have access to any form of internet activity. The graph shows that up to 95 respondents have smart phones/devices, while about 68 respondents do not have any smart phones/devices. The large number of respondents who do not have smart phones/devices indicate the need to promote the use of smart phones/devices.

The graph in Fig. 4 further shows reasons for about 68 respondents not using smart phones/devices. 33 respondents opined that it is unnecessary luxury using smart phone/device, 17 respondents do not see the need to have a smart device, 11 respondents have no interest, 5 respondents cannot afford a smart phone/device and only 1 respondent have other reasons.

The graph in Fig. 5 shows individuals' rating IT facilities and services. Respondents scored security lowest, followed subscribers' privacy. The general views of respondents show that they are quite satisfied with costs, the use of modern technology and signal coverage of the telecommunication organizations. However, the network providers will still need to pay attention to improving signal quality and quality of service (QoS) as in Refs. [2–5], which is essence to successful IoE.

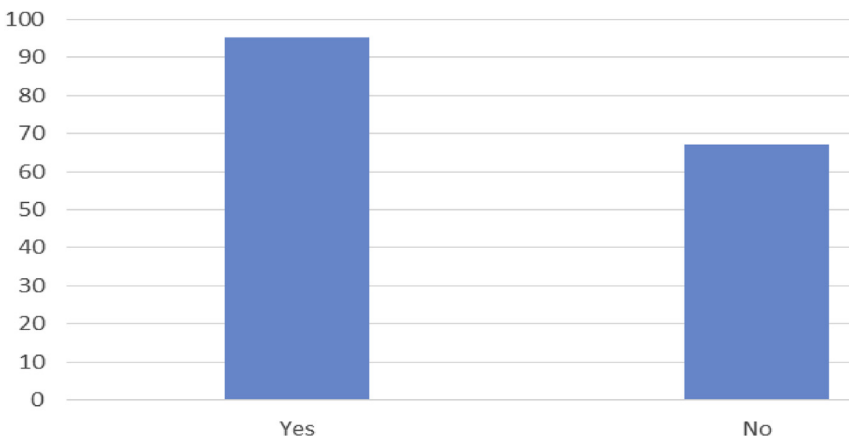


Fig. 3. Response to the Question: Do you have a smart phone/device?.

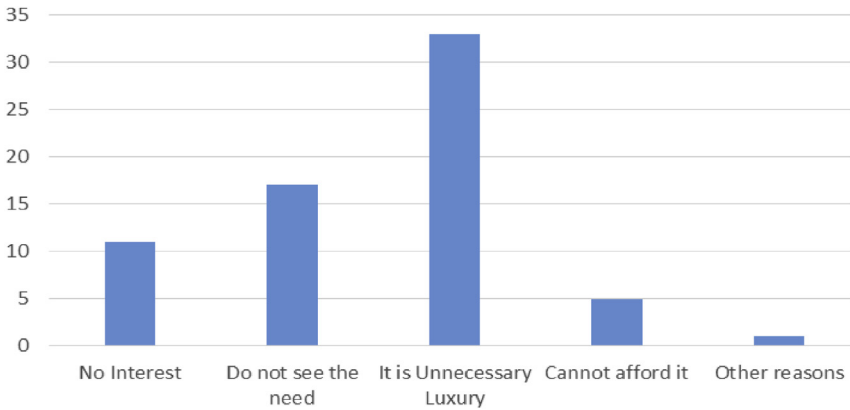


Fig. 4. Reasons for not using smart phone/device.

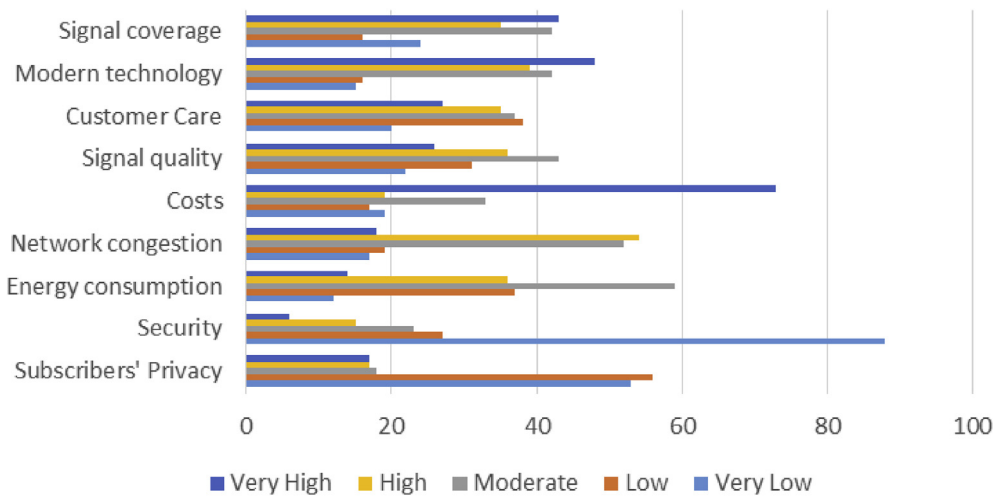


Fig. 5. Individual Respondent's rating of communication facilities and services in Nigeria.

2. Experimental design, materials and methods

Survey method was adopted in the research. 163 workers in Lagos State, Nigeria were included in the research. With the technology sophistication that characterizes the present knowledge economy and the current drive of the Federal Government of Nigeria to create a smart economy for enhanced national competitiveness, it becomes pertinent to examine the level of preparedness of Nigeria for such challenge [8–10]. Although, large organizations in Nigeria are investing huge amounts into enhancing their technological capabilities, but at the national level, there is still a lack of aggressive efforts from the government towards achieving a smart economy [11–13]. Therefore, this paper is intended to guide researchers, practitioners and policy makers about the present state of mind of the Nigerian populace over the preparedness of the nation for internet of everything. This dataset will enhance policy frameworks and strategic actions that will help to achieve a technologically sophisticated economy. The collated statistical facts were coded and entered in SPSS version 22. Statistical analysis was performed applying descriptive statistics and graphical representations. Ethical consideration in the research process was ensured because administering the questionnaires to respondents was based on

their willingness to respond to the research instrument. Moreover, confidentiality and anonymity for participants was assured.

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Transparency document

Transparency document associated with this article can be found in the online version at <https://doi.org/10.1016/j.dib.2019.103807>.

References

- [1] Augustus Ehiremen Ibhaze, Simeon O. Ajose, Aderemi A. Atayero, Francis E. Idachaba, "Developing Smart Cities through Optimal Wireless Mobile Network", International Conference on Emerging Technologies and Innovation Business Practices for the Transformation of Societies (EmergiTech), IEEE Xplore, August, 2016, pp. 38–42, <https://doi.org/10.1109/Emergi-Tech.2016.7737322>. November, 2016.
- [2] Alessandra Papetti, Andrea Capitanelli, Lorenzo Cavalieri, Silvia Ceccacci, Francesca Gullà, Michele Germani, Consumers vs Internet of Things: a Systematic Evaluation Process to Drive Users in the Smart World. Proceedings of 26th CIRP Design Conference 2212-8271 ©, Elsevier, 2016. Published by ScienceDirect.
- [3] Adeyinka A. Adewale, Emmanuel R. Adagunodo, S.N. John, Charles Uzoanya Ndujiuba, A comparative simulation study of IP, MPLS, MPLS-TE for latency and packet loss reduction over a WAN, *Int. J. Netw. Commun.* 6 (1) (2016) 1–7. ISSN: 2168-4936 e-ISSN: 2168-4944.
- [4] A. Adewale Adeyinka, Dike U. Ike, N. Ndujiuba Charles, N. John Samuel, Improvement of Quality of Service (QoS) over a Wide Area Network (WAN) using Multiprotocol Label Switching Traffic Engineering (MPLS-TE), *Int. J. Comput. Appl.* 88 (10) (February 2014) 14–18 (0975-8887).
- [5] S.N. John, F.A. Ibikunle, A.A. Adewale, Performance Improvement of Wireless Network Based on Effective Data Transmission, IET Conference on Wireless, Mobile and Multimedia Networks, 2008, pp. 134–137.
- [6] Adeyinka A. Adewale, I.A. Samuel, A.A. Awelewa, Ike U. Dike, Design and development of a microcontroller based automatic switch for home appliances, *Int. J. Eng. Sci. Invent.* 2 (10) (2013) 24–31. ISSN 2319 – 6734, ISSN (Print): 2319 – 6726.
- [7] S.N. John, I.N. Itaketo, A.A. Adewale, Automation and Easy Accessibility of Medical Services in Nigeria (ICT and Medicine). International Conference on Managing Current Global Challenges: IT Strategies and Tools, MacGlobe '09 Nigeria Computer Society, Abuja, 2009. July 21st – 24th.
- [8] E.S. Osabuohien, U.R. Efobi, Technology diffusion and economic progress in Africa: challenges and opportunities, *Disruptive Technol. Innov. Glob. Redesign Emerg. Implications* (2012) 425–440.
- [9] J. Kimmerle, U. Cress, C. Held, J. Moskaliuk, Social software and knowledge building: supporting co-evolution of individual and collective knowledge, in: K. Gomez, L. Lyons, J. Radinsky (Eds.), *Learning in the Disciplines: Proceedings of the 9th International Conference of the Learning Sciences vol. 1*, Routledge, Chicago, IL, 2010, pp. 9–16.
- [10] A.A. Babajide, F.O. Olokoyo, J.N. Taiwo, Evaluation of effects of banking consolidation on small business finance in Nigeria, *Proc. 23rd Int. Bus. Inf. Manag. Assoc. Conf.* 1 (2016) 2522–2540.
- [11] A.A. Adewale, A.S. Ibadunni, J. Badejo, T. Odu, A.U. Adoghe, Biometric enabled E-banking in Nigeria: management and customers' perspectives, *Inf. Knowl. Manag.* 4 (11) (2014) 23–28.
- [12] I.O. Akinyemi, Z.O. Omogbadegun, O.M. Oyelami, Towards designing a biometric measure for enhancing ATM security in Nigeria E-banking system, *Int. J. Electr. Comput. Sci. IJECs-IJENS* 10 (6) (2010).
- [13] T.T. Siyanbola, The effect of cashless banking on Nigerian economy, *Can. J. Account. Finance* 1 (2) (2013) 9–19.