Table 1 Quality Appraisal of the Included Studies

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| First\_Author | Study\_Year | settlement | State | Region | Sample Size | Scoring Items | | | | | | | Total | | Quality | |
|  |  |  |  |  |  | sample  frame | sampling | Sample  size | Subjects  /setting | Valid  methods | Reliable  methods | | Score | |  | |
| Isezuo | 2011 | urban | sokoto | north\_west | 782 | 1 | 1 | 1 | 1 | 1 | 1 |  | | 6 | | Good | |
| Ononamadu | 2016 | mixed | anambra | south\_east | 912 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Okwounu | 2015 | urban | abia | south\_east | 389 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Umuerri | 2020 | urban | delta | south\_south | 852 | 1 | 0 | 1 | 1 | 1 | 1 | | 5 | | Good | |
| akinbodewa | 2014 | urban | ondo | south\_west | 1183 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Yakubu | 2019 | urban | all of the 36 states  and the FCT | all the six geo-  political zones | 3013 | 1 | 1 | 1 | 1 | 0 | 0 | | 4 | | Poor | |
| Nwatu | 2017 | rural | enugu | south\_east | 824 | 1 | 1 | 1 | 1 | 1 | 1 | | 6 | | Good | |
| Dokunmu | 2018 | urban | ogun | south\_west | 182 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Ofori | 2018 | rural | rivers | south\_south | 389 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Wokoma | 2011 | rural | rivers | south\_south | 152 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Obiora | 2012 | urban | anambra | south\_east | 210 | 0 | 0 | 0 | 1 | 0 | 0 | | 1 | | Poor | |
| Banigbe | 2020 | urban + rural | benue | north\_central | 6538 | 0 | 0 | 1 | 1 | 1 | 0 | | 3 | | Poor | |
| Suleiman | 2013 | urban | bayelsa | south\_south | 400 | 1 | 1 | 1 | 1 | 1 | 1 | | 6 | | Good | |
| Ibuaku | 2018 | rural | delta | south\_south | 432 | 0 | 0 | 1 | 1 | 1 | 0 | | 3 | | Poor | |
| Odunaiya | 2020 | urban | ibadan | south\_west | 316 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Kooffreh | 2016 | urban | cross river | south\_south | 300 | 1 | 1 | 0 | 1 | 1 | 1 | | 5 | | Good | |
| Guwatudde | 2015 | urban | abuja | north\_central | 163 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Andy | 2012 | rural | akwa ibom and cross rivers | south\_south | 3869 | 1 | 0 | 1 | 1 | 1 | 1 | | 5 | | Good | |
| Egbi | 2018 | rural | bayelsa | south\_south | 131 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Ayanniyi | 2016 | urban | not reported | south\_west | 356 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Mmom | 2016 | urban | rivers | south\_south | 201 | 0 | 0 | 0 | 1 | 1 | 0 | | 2 | | Poor | |
| Raimi | 2020 | rural | ogun | south\_west | 412 | 1 | 0 | 1 | 1 | 1 | 1 | | 5 | | Good | |
| Ambakederemo | 2018 | urban | bayelsa | south\_south | 168 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Odili | 2020 | urban + rural | 6 states | all 6 zones | 4192 | 1 | 1 | 1 | 1 | 1 | 1 | | 6 | | Good | |
| Ejike | 2017 | urban | mixed | south\_east | 1610 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Ayodele | 2017 | urban | osun | south\_west | 131 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Shittu | 2018 | urban + rural | oyo | south\_west | 6915 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Aladeniyi | 2017 | urban | ondo | south\_west | 4844 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Wada | 2020 | rural | osun | south\_west | 138 | 0 | 0 | 0 | 1 | 1 | 0 | | 2 | | Poor | |
| Tagurum | 2015 | rural | plateu | north\_central | 195 | 1 | 1 | 0 | 1 | 1 | 1 | | 5 | | Good | |
| Oladoyinbo | 2015 | urban | ogun | south\_west | 300 | 1 | 1 | 0 | 1 | 1 | 1 | | 5 | | Good | |
| Bello-Ovosi | 2018 | urban | kaduna | north\_west | 181 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Adeoye | 2016 | urban | ibadan | south\_west | 352 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Ganiyu | 2014 | rural | delta | south\_south | 500 | 1 | 1 | 1 | 1 | 1 | 0 | | 5 | | Good | |
| Adamu | 2014 | urban | sokoto | north\_west | 298 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Olamoyegun | 2016 | urban | ekiti | south\_west | 750 | 1 | 1 | 1 | 1 | 1 | 1 | | 6 | | Good | |
| Abu-Saeed | 2014 | urban | kwara | north\_central | 270 | 1 | 1 | 0 | 1 | 1 | 1 | | 5 | | Good | |
| Okpechi | 2013 | urban | abia | south\_east | 2983 | 1 | 1 | 1 | 1 | 1 | 1 | | 6 | | Good | |
| Wordu | 2018 | urban | rivers | south\_south | 215 | 1 | 0 | 0 | 1 | 1 | 1 | | 4 | | Poor | |
| Ajayi | 2019 | urban | ekiti | south\_west | 426 | 0 | 0 | 1 | 1 | 0 | 0 | | 2 | | Poor | |
| Abah | 2014 | urban | plateu | north\_central | 200 | 0 | 0 | 0 | 1 | 0 | 1 | | 2 | | Poor | |
| Adejumo | 2013 | urban | lagos | south\_west | 300 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Dada | 2020 | urban | ekiti | south\_west | 300 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Obiebi | 2019 | urban | delta | south\_south | 296 | 1 | 1 | 0 | 1 | 1 | 1 | | 5 | | Good | |
| Olaitan | 2020 | urban | plateu | north\_central | 283 | 0 | 0 | 0 | 1 | 1 | 0 | | 2 | | Poor | |
| Okafor | 2014 | rural | anambra | south\_east | 137 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Egbi | 2015 | urban | bayelsa | south\_south | 231 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Uwah | 2015 | urban | akwa ibom | south\_south | 393 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Opreh | 2021 | rural | osun | south\_west | 1012 | 1 | 1 | 1 | 1 | 1 | 1 | | 6 | | Good | |
| Adelewo | 2019 | urban | abuja | north\_central | 417 | 0 | 0 | 1 | 1 | 0 | 0 | | 2 | | Poor | |
| Nkechi | 2018 | urban | rivers | south\_south | 304 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Upla | 2020 | rural | nasarawa | north\_central | 299 | 1 | 1 | 1 | 1 | 1 | 1 | | 6 | | Good | |
| Makuside | 2013 | urban | sokoto | north\_west | 535 | 0 | 0 | 1 | 1 | 1 | 1 | | 4 | | Poor | |
| Olatona | 2018 | urban | lagos | south\_west | 503 | 0 | 0 | 1 | 1 | 1 | 0 | | 3 | | Poor | |
| Okubadejo | 2019 | urban | lagos | south\_west | 5365 | 1 | 1 | 1 | 1 | 1 | 1 | | 6 | | Good | |
| Ale | 2014 | urban | lagos | south\_west | 101 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Charles-Davies | 2013 | urban | ibadan | south\_west | 534 | 1 | 1 | 1 | 1 | 1 | 0 | | 5 | | Good | |
| Nwazor | 2012 | urban | ebonyi | south\_east | 215 | 0 | 0 | 0 | 1 | 1 | 1 | | 3 | | Poor | |
| Olawade | 2020 | rural | gombe | north\_east | 78 | 0 | 0 | 0 | 1 | 1 | 0 | | 2 | | Poor | |
| Ajayi | 2016 | urban | ibadan | south\_west | 806 | 1 | 1 | 1 | 1 | 1 | 1 | | 6 | | Good | |
| Egbuono | 2015 | urban | abia | south\_east | 200 | 0 | 0 | 0 | 1 | 1 | 0 | | 2 | | Poor | |
| Adenrele | 2019 | urban | abuja | north\_central | 417 | 0 | 0 | 0 | 1 | 0 | 0 | | 1 | | Poor | |
| Okafor | 2011 | urban | enugu | south\_east | 898 | 1 | 1 | 1 | 1 | 1 | 1 | | 6 | | Good | |