



VALIDITY OF SELF-REPORT TO MEASURE FARM SIZE: EVIDENCE FROM NORTHERN GUINEA SAVANNAH OF BORNO STATE, NIGERIA

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ABSTRACT

The study was explored to examine the validity of self-report to measure farm size: Evidence from Northern Guinea Savannah of Borno State, Nigeria. Multi-stage sampling procedure was used to select 667 respondents. The data were collected using Universal Transverse Mercator (UTM-area) direct measure and interview of a household head. Data were analysed using both descriptive statistics (count, percentage and mean) and inferential statistics (multiple regression and intra-class correlation). The results found the F-value of 2.7778 significant at P 0.001 implying that the model was reliable; and the deterministic coefficient was found to be 3.3% meaning that socio-economic characteristics were not the major determinants of self-reported farm size precision because 96.7% variations were accounted by other variables. The regression coefficient was 0.0128 signifying that if years of education increased by 1 year, the precision in self-reporting farm size will increase by 0.0128%. The intra-class correlation using two-way mixed effects model (where; people effects are random and measures effects are fixed) connotes that there is no agreement between two methods of measurement as depicted by average measure of intra-class correlation of 0.066. It was then concluded that farmers' self-reported farm size was not valid and the only socio-economic factor that is affecting it was education. The study therefore, recommended that the use of any available application for measuring farm size during surveys like UTM-area measure which available at play store and compatible with Androids phone should be used.

Keywords: Farm size measure, Intra-class correlation, Measured farm size, Self-report, Validity.