



APPLICATION OF TECHNOLOGICAL INNOVATION IN PROMOTING THE ADOPTION OF N₂AFRICA COWPEA VARIETIES FOR INCOME GENERATION IN BORNO STATE, NIGERIA

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ABSTRACT

The study investigated the use of technological innovation in promoting the adoption of N₂Africa cowpea varieties for income generation in Borno State, Nigeria. A multi-stage sampling procedure was used for the study, with a purposive selection of three (3) Local Government Areas (LGAs) namely; Biu, Hawul and Kwayakusar. The data was obtained from 244 respondents. Descriptive statistics were used to describe the socio-economic characteristics and inferential statistics namely; adoption score, probit regression model and profitability model were also used. The results revealed that males dominated the farming population in the study area. The highest adoption score of the technological innovation was IT89KD-288 (60%) and the lowest was UAM09-1046-6-1 (48%); and spacing had the least score across the improved cowpea varieties. The probit result revealed that three (3) variables (sex, age and extension contact) significantly ($P = 0.077^*$, $P = 0.065^*$ and $P = 0.002^{***}$) influenced the adoption of UAM09-1046-6-1, whereas, (education and household size) significantly (0.027^{**} and 0.011^{**}) influenced the adoption of IT99K-573-2-1 improved cowpea varieties. There was profitability in the production of the improved varieties, which led to generation of income among the cowpea farmers. It was recommended that farmers should be linked with good input dealers to enable them have fertilizer at affordable prices, increase in extension services on influencing more farmers to produce UAM09-104606-1 due to its high yield.

Keywords: Adoption, Cowpea, Income, Innovation, Technological, Varieties.