Abstract

The agriculture sector faces numerous types of threats including production and market risks. The risks potentially decelerate the growth of the agriculture sector in terms of reduced production and income, necessitating the farmers to adopt Risk Management Strategies (RMS). The impact of risk management on farm productivity is still being debated. Besides, developing countries have carried out limited research work on the factors that influence farmer adoption of RMS and the effect of using RMS on the production of legumes to understand farmers' risk behavior and the effectiveness of adopting RMS on crop yield. To understand the association between socioeconomic factors, RMS, and groundnut yield a total of 161 groundnut farmers from Mchinji district, Malawi was interviewed. Random effects panel linear regression analyses and Structural Equation Modelling (SEM) were used on a three year-long (2021–2023) panel data to understand these important relationships. The study established that farmers' perception of risk, access to extension and insurance services, membership to Farmer Based Organization (FBO), land holding size, and farming experience positively influenced farmer adoption of RMS. Additionally, the adoption of RMS along with other socioeconomic factors such as education and wealth of the household head had a positive effect on groundnut yield. The results suggest that policy interventions should enable households to acquire an ideal combination of socioeconomic characteristics that influence their adoption of RMS to enhance their crop yields. Additionally, further study on emerging RMS and the influence of specific RMS on crop yield can help guide the development of an informed policy that could increase farmers adaptation to agricultural risks.