Smallholder farmers’ behavioural intention towards sustainable agricultural practices in Ethiopia: minimum tillage and row planting practices

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Abstract
Sustainable agricultural practices are considered as a win-win strategy especially for low-income countries wherein food insecurity and climate change can simultaneously be solved. Despite the numerous studies, little work has been done on socio-psychological behaviour of farmers for the sustainable practices. This study assesses smallholder farmers’ intention in adopting sustainable agricultural practices in a cross-sectional survey. The possible role of attitude and information on intention is also explored. The decomposed theory of planned behaviour that has received significant attention more recently is used as a theoretical basis. The structural equation modelling is applied for data analysis. The findings reveal that subjective and social norms, and attitude positively and significantly explain the farmers’ intention to adopt both minimum tillage and row planting sustainable practices. Perceived usefulness and perceived friendliness are the most significant predictors of the attitude of farmers while relational networks, extension services and action-oriented training are factors that significantly affect the subjective and social norms of small farmers to adopt both practices. However, perceived compatibility, uses of mass media, resource conditions and technology conditions are found to be statistically insignificant factors for behavioural intention model. This implies that economic resources and infrastructure facilities don’t surface as effective predictors of the smallholder farmers' behavioural intention for sustainable practices. Consequently, the main reasons for non-adoption of sustainable practices are social and psychological reasons. Information and attitude have great impact on individual farmer’s decision making process in agriculture. Therefore, focus should be given for social-psychological factors in order smallholder farm households to adopt sustainable practices, and thereby improve farm productivity, and enhance their income and social welfare.

Keyword: smallholders, information, intention, sustainable practice, behavioural approach, Ethiopia.