

## ABSTRACT

Banana is a key crop for food and income security in Uganda yet diseases such as Banana Xanthomonas Wilt (BXW) threaten its survival in the country. The use of quality planting material such as TC banana planting materials as a source of clean seed is vital for the eradication of the disease. Nonetheless, uptake of this agricultural technology is low, with most studies focusing on economic factors that influence uptake of the technology. Limited attention has been paid to the socio-cultural context in which banana farming is carried out. In this study, I examined the influence of socio-cultural factors on the uptake of TC banana seed among smallholder farmers in central Uganda. The study specifically; (i) examined the Baganda culture on banana cultivation and its influence on farmer use of TC banana planting materials in central Uganda; (ii) analyzed farmer perceptions on TC banana seed and their influence on farmer intentions to use the TC plantlets in central Uganda and (iii) assessed the factors that influence uptake of TC banana seed among smallholder farmers in central Uganda. The study used a mixed methods research approach employing both qualitative and quantitative methods of data collection. Three phases of investigation were used: literature review, 10 key informant interviews, 8 focus group discussions involving 64 banana farmers and a household survey of 248 respondents in Mukono and Luweero districts of central Uganda. Results show that banana varieties in the study communities are important for food, cultural practices and medicine. The farmers regard banana from TC planting materials as incompatible with their tastes and preferences of the banana crop for traditional food and drinks, medicinal, cultural and traditional practices. The use of TC planting materials is perceived as a risky venture because of its inadaptability to local weather and soil conditions. Further, TC is perceived as complex to use, farmers requiring more knowledge and information on how to plant and maintain the plantlets on-farm. Results also reveal farmer intentions to use TC planting materials to be dependent on two constructs: social influence ( $\beta = 0.432$ ;  $P < 0.01$ ) and farmer innovativeness ( $\beta = 0.095$ ;  $P < 0.05$ ). Social influence is the main predictor of farmer intentions to use TC planting materials. In particular, farmer innovativeness mediates facilitating conditions and social influence in predicting intentions to use tissue culture banana planting materials. The findings also reveal that TC seed acceptability ( $\beta = 0.74$ ;  $P < 0.01$ ), adaptability ( $\beta = 0.69$ ;  $P < 0.01$ ) and availability for farmer use ( $\beta = 1.04$ ;  $P < 0.01$ ) along with farmer competences and socio-economic factors positively influence farmer uptake of banana TC seed. For uptake intensity, the main positive drivers include TC seed acceptability ( $\beta = 0.39$ ;  $P < 0.05$ ) and accessibility ( $\beta = 0.39$ ;  $P < 0.01$ ) and farmer competences. The study emphasizes the need for more involvement of extension services and research institutions in the promotion of the TC planting materials in the banana farming communities. This involvement could include effective provision of appropriate information concerning the banana TC seed, albeit using role models (e.g. faith-based leaders and the local leadership) in the communities since social influence plays a pivotal role in increasing uptake of the banana seed. Further, TC banana planting materials as a new agricultural intervention should be promoted through locally institutionalized mechanisms, like faith-based leaders, political and community leaders and their respective members. Fostering individual and group-based forms of interactive learning (e.g. through farmer groups, experimental gardens and extension) can act as systems for enhanced encouragement purposely to trigger the acceptance and use of The TC banana technology. Results also reinforce the need for the developers and promoters of TC banana seed (e.g. TC Laboratories, research institutions and agricultural extension agents) to focus attention on banana varieties that are acceptable and adaptable to farmer environmental conditions.