

Despite the recognition of social capital as an important factor of production, research has devoted minimal attention to investigating its influence on the adoption of agricultural biotechnological innovations. As a consequence, relatively little is known about the specific influence of social capital on adoption of technology. This study uses the case of adoption of tissue culture (TC) banana technology by smallholder farmers in the Maragua and Muranga Districts of Central Kenya to gain a better understanding of this topic. Three research objectives were used and qualitative and quantitative data captured to answer them. From the target population of 1,200 adopters 182 respondents were selected in a three stage sampling design. Primary data were collected using a questionnaire, observation recording form, key informant interviews and focus group discussion. Secondary data were obtained from organizations that had participated in the TC project implementation. To measure the independent variables, constructs were developed after a literature review, focus group and key informants discussion. Through regression analysis, the study showed that social capital significantly increased TC adoption. Using correlation and regression analyses, the study identified three key determinants of social capital among the TC adopters, namely network density, trust and group leadership. Each indicator had significant influence on TC adoption. The study showed that network density indicator was mobilized through extension agents, third party introduction, group leaders, individuals, inheritance, media, exhibitions, field days and agricultural shows and influenced adoption by increasing access to resources, removing the barrier to information, reducing the time for decision making and creating opportunity for referral to partners who could provide additional resources. Trust was cultivated through regular face-to-face meetings and joint activities. It served as a lubricant to the relationship between the TC adopters and their network partners and was an important component in building and maintaining the ties. Group leaders were elected through a democratic process and provided vision, encouragement, and forged links with external partners. The other social capital indicators considered in this study which included, network depth, joint activities, group decision-making, cohesion/solidarity, rules, norms and group meeting attendance had no significant relationship with TC adoption. The study assessed the 'Entrepreneurial Orientation' (EO) of the adopters using a construct that evaluates three traits; proactiveness, risk taking and innovativeness. Majority of the TC adopters had high EO confirming that they were entrepreneurs. The analysis further confirmed a positive correlation between EO and TC adoption. The study established that the TC technology had most of the properties of an innovation that can be adopted or applied quickly. There was a positive correlation between perception of TC and adoption. However, for TC adoption to proceed at a faster rate the high initial cost of adoption will need to be addressed. The study recommends that smallholder adopters of agricultural innovations in groups should be treated as entrepreneurs who should be supported to build networks founded on trust with strong leadership. In addition, the study recommends the use of the framework for further conceptual and empirical evaluations to assess if the three indicators are applicable in the adoption of other technologies, taking into account the fact that some aspects of these studies were technology-specific. The study concludes that it is essential to pay attention to the multidimensional nature of social capital and

their different impact to the adoption of agricultural innovations. The implication of this study extends beyond filling in a significant lacuna in the existing scholarship; it has the potential to improve development programme designs that seek to mobilize and exploit social capital in the adoption of agricultural innovation.