

## ABSTRACT

Microfinance institutions are essential in improving smallholder farmers' production and productivity by providing financial resources. Despite the benefits of microfinance credit on production, its uptake in the Maara sub-county remains low compared to potential output. Several factors have been shown to contribute to low microfinance credit uptake, including inadequate financial literacy, lack of collateral, high transaction costs, and inadequate infrastructure. However, these factors may vary from region to region. Therefore, there is a need to continuously study the factors that affect microfinance credit uptake to develop dynamic policies for sustainable agricultural productivity. The study aimed to analyse the effect of institutional factors, farmer and farm characteristics, the influence of perceptions and attitudes, and the effect of milk yield on microfinance credit uptake among smallholder dairy farmers in the Maara Sub-County. The study employed a descriptive research design and utilized a sample of 315 smallholder dairy cattle farmers, selected through cluster sampling from a target population of 1,500. The study applied the theory of diffusion of innovation. A semi-structured questionnaire was used to collect data on institutional factors, farm and farmers' characteristics, milk yield, and farmers' perceptions and attitudes. The analysis of the data was conducted utilizing Stata version 17. A probit model was used to determine how farm and farmers' characteristics, institutional factors, and milk yield affect microfinance credit uptake. A Principal Component Analysis was used to analyse the effects of farmers' perceptions and attitudes on microfinance credit uptake. Group membership, collateral availability, and the number of dairy cattle all had a positive and significant ( $p = 0.000$ ) effect on microfinance credit uptake. Collateral availability had the highest effect implying that one unit increase in the smallholder dairy cattle farmers' collateral increases the uptake of microfinance credit by 45.23%. The positive effect may imply that the collateral can be liquidated in case of default. At the same time, the number of dairy cattle had the lowest effect implying that an increase in the number of dairy cattle by one unit increases the uptake of microfinance credit by 11.19%. The results of this study also showed that years of schooling had a negative and significant ( $p = 0.000$ ) effect on credit uptake. The negative effect implies that an increase in one unit of schooling years decreases the uptake of microfinance credit by 1.57%. This implies that more educated smallholder dairy cattle farmers have a higher level of awareness regarding the costs associated with credit uptake such as interest rates, thus lowering their borrowing. However, the gender of the decision maker, age, land size, household size, the area under dairy cattle, and the milk yield per cow per day did not significantly ( $p > 0.05$ ) affect the uptake of microfinance credit by smallholder dairy cattle farmers. The Principal Component Analysis model results showed that smallholder dairy cattle farmers negative experience had the highest factor loading (38.88%), while farmers' mistrust of the microfinance credit provider had (17.07%) loading factor on the uptake of microfinance credit. Therefore, the study concluded that group membership, collateral availability, and the number of dairy cattle play a vital role in positively influencing credit uptake. On the other hand, the negative effect of years of schooling underscores the importance of implementing targeted financial literacy programs to empower farmers with the necessary knowledge and bridge the credit uptake gap. The study further recommended that formulating policies geared toward enhancing the educational attainment of farmers would be vital in enhancing credit uptake to farmers in the study area. To promote sustainable agricultural productivity, targeted financial literacy programs must address farmers' challenges. Encouraging participation in farmer groups will enhance credit access.