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ECONOMIC BENEFIT OF POST-HARVEST HANDLING TECHNOLOGY ADOPTION ON MAIZE PRODUCTION AMONG SMALLHOLDER FARMERS IN KAPTANYA SUB-COUNTYKAPCHORWA DISTRICT

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DECLARATION

I hereby declare that this work is truly my original work and it has never been submitted in any institution for any academic award.

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APPROVAL

This report is submitted by the approval of My supervisor

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PHH	Post harvest handling technology
RTC	Rational choice theory
EUT	Expected utility theory
FAO	Food agriculture organization
UBOS	Uganda bureau of statistics
PHL	Post harvest losses
SSA	Sub Saharan Africa
TC	Total cost
TVC	Total variable cost
TFC .	Total fixed cost
TC	Fixed cost
VC	Variable cost
FC	Fixed cost
GR	Gross revenue
TR	Total revenue
CE	Cost effectiveness
PHT	Post-harvest technology
CBA	Cost benefit analysis
CVI	Content validity index
SPSS	Statistical package for the social science

ABSTRACT

Maize is an important food and income security crop that supports livelihood of millions of small-scale farmers in Uganda and among the dominant staple food crop in Kaptanya sub-County. The study was conducted in Kaptanya sub-County using cross sectional household survey research design and sought to achieve the following objectives: to identify key post-harvest handling technologies adopted by smallholder maize farmers and to determine the influence of the post-harvest handling technologies by smallholder maize farmers on maize production in the study area. A sample of 52 respondents were selected through Random sampling and purposive techniques from the four parishes of Ngangata, Tumboboi, Kaptowoi and Moron. Data was collected by use of questionnaires and Key Interview guides. Key Informants were picked through purposive sampling method. SPSS software, version 20 was used to analyze the data on the effect of post-harvest handling technology adoption on maize production among smallholder farmers in Kapchorwa district as a tool for training and enhancing decision-making power of the farmers. Data findings presented in this study show that farmers had adopted various post-harvest handling technologies showing that maize farmers had adopted technologies that are contributing to adding value to the maize. However, the current study found out that 13.30% farmers had adopted maize drying technologies that suggests an increase maize value chain may result into profits due to high demand. 13.10% Maize farmers had adopted shelling maize technology/methods such as using hands, electric Sheller, fuel Sheller and threshing using sticks. However, most of the farmers adopted intensive shelling methods that are time consuming and have harms to the hand of men and women farmers. Farmers had adopted storage methods and technologies 1.50%. However, the majority of the farmers used methods that are associated with *Fusarium* spp and *Aspergillus* spp infestation which may lead to fumonisin and aflatoxin contamination, that there is a relationship between the drying maize methods/technologies and maize production, that maize shelling increases maize production for sell and relationship between storage and maize production. The study thus made the following recommendations; the government should come up with agriculture loan schemes to help farmers get income to adopt modern technologies that are profitable. The government should empower the agriculture extension officers so that they are able to train the maize farmers on the better post harvesting technologies as training courses and extension visits positively influenced technology use.