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Background

- •There is a steady increase in the population of the world projected to reach 9.7 billion (UN, 2015)
- The increase in population is accompanied by an increase in demand for food (FAO, 2010)
- •Specific consumers segments prefer white meat to other types of meats
- •Poultry is a significant contributor of white meat in the world
- •Poultry is mainly produced by smallholder farmers in developing countries of the world
- •Most smallholder are resource constrained in production of poultry
- •Collective action or farmer groups offer an alternative to markets and increase smallholder bargain power
- •Despite an increase investment in farmer marketing groups only 20% of households in Eastern Kenya participate in collective marketing(CM)



Figure 1:A smallholder farm in Kenya

Research objectives

•To evaluate the decision to participate in collective marketing among smallholder in Eastern Kenya

•To assess the effect of collective marketing on Farm incomes among smallholder in Eastern Kenya

Methodology

- Selection of Makueni County from leading poultry producers
- Selection of 3 districts of Kee, Kaiti and Wote
- Random picking of a division from each
 of the districts
- Sampled 237 households from the 3
 districts
- We used FGD and Key informant interviews to validate data
- The data was subsequently analysed using a propensity score matching (PSM)
- PSM preferred to check endogenity and since the study was an observational study

Probit regression: Y^{*}_i= α+βX+ε_i

 $\cdot Y_{i}^{*}$ is unobservable but is reflected by the choice of individuals, where, Y_{i}^{*} =1 $\,\geq$ 0 for yes and $\,Y_{i}^{*}$ =0 <0 for no

•X is a vector of independent variables, while β is coefficient and ϵ is the disturbance or error term •Propensity score given By: P(x) =Pr {D=1|x} =E

{D|x}
 •Where D= {1, 0} represent decision to do collective marketing and ATT is given by:

E={E{Y1i|D=Di=1,p(xi)}-E{Y0i|Di=0,p(xi)}|Di=1}

Result s						
Table 2: Determinants of the decision of smallholder to participate in collective marketing						
Participation in Collective marketing (1=Yes 0=No)	Marginal effects dy/dx	Std. Err.				
Group sizes	-0.12**	0.07				
source of labor	-0.15**	0.06				
Marketing channel	-0.09***	0.03				
frequency of contact with extension	0.02**	0.01				
Kee dummy	-0.53***	0.14				
Kaiti dummy	-0.15**	0.09				
Gender of household head	0.00	0.00				
Age of household head	0.00	0.01				
Education level of household head	-0.21**	0.12				
Frequency of group meetings	0.41***	0.12				
Distance to market	-0.11**	0.44				
Distance to weather road	-0.17***	5.83				
Other livestock unit	0.00	0.00				





Impact of participation in CM on household farm income

Table 3:Effect of participation in collective marketing on household farm income

Matching algorithm	Number of Treated	Number of control	ATT	Std. Err.	t
Necret					
neighbor	145	92	2125.37	586.03	3.63
Kernel matching	145	92	2125.37	689.53	3.08
Radius matching	145	92	2125.37	665.09	3.20

•The sensitivity analysis showed that there is no hidden bias

- Participants improve incomes by Ksh 2125.37 compared to non participants with similar socioeconomic characteristics
- Evidence of positive effects of collective marketing

Discussions

improved use of labour would increase the participation in collective marketing
Use of shorter marketing channels encourage participation in collective marketing

•Extension agents are an effective way of improving collective market participation •Infrastructural differences in the location are likely to discourage collective marketing

•Group dynamics are likely to affect decision to participate in collective marketing

•Capacity building required in order to encourage collective marketing •CM improve incomes from farming

Conclusions and Recommendations

- Collective marketing should be incorporated into extension policies
- •Prioritization of infrastructural
- improvement could induce more farmers into collective marketing
- •Collective marketing should be based on group similarities and not perceived benefits
- •Participatory approaches are needed to improve on collective marketing participation

•Up scaling of collective marketing has potential to improve on smallholder livelihoods in Eastern Kenya

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