

# “Green village hubs” and smallholder marketing preference in Kenya: a discrete choice modeling

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## Introduction

- At least 75% of certified organic agriculture is done in developing countries
- Global organic market estimated at about US \$59 billion
- At least 50% of Kenyan population live below the poverty line
- About 35% of population in Kenya are food insecure
- There is a gap in innovative organic market models in Kenya
- Green village hub (GVH) is a participatory organic model under trial in Makueni County, Kenya

## Objectives

- To characterize the marketing section within the GVH in Makueni County
- To determine the effect of GVH attributes on the choice of organic market information among smallholder in Makueni County

## Methodology

- Study area was Makueni County in Kenya
- A stratified random sampling was done to obtain 130 smallholder farmers from 3 divisions
- Smallholder farmers focus group discussions (FGD) and PRA methodology
- Data reduction conducted (PCA)
- A logit regression was used to estimate the effects of GVH attributes on market information choices

$$U_{jk} = \beta X_{jk} + \epsilon_k$$

$$P_{jk} = \exp(\mu(C_k)(\beta X_{jk})) / \sum_1^j \exp(\mu(C_k)(\beta X_{jk}))$$

$$y_{iGVH} = x_{1i}\beta_1 + x_{2i}\beta_2 + \epsilon_{GVH}$$

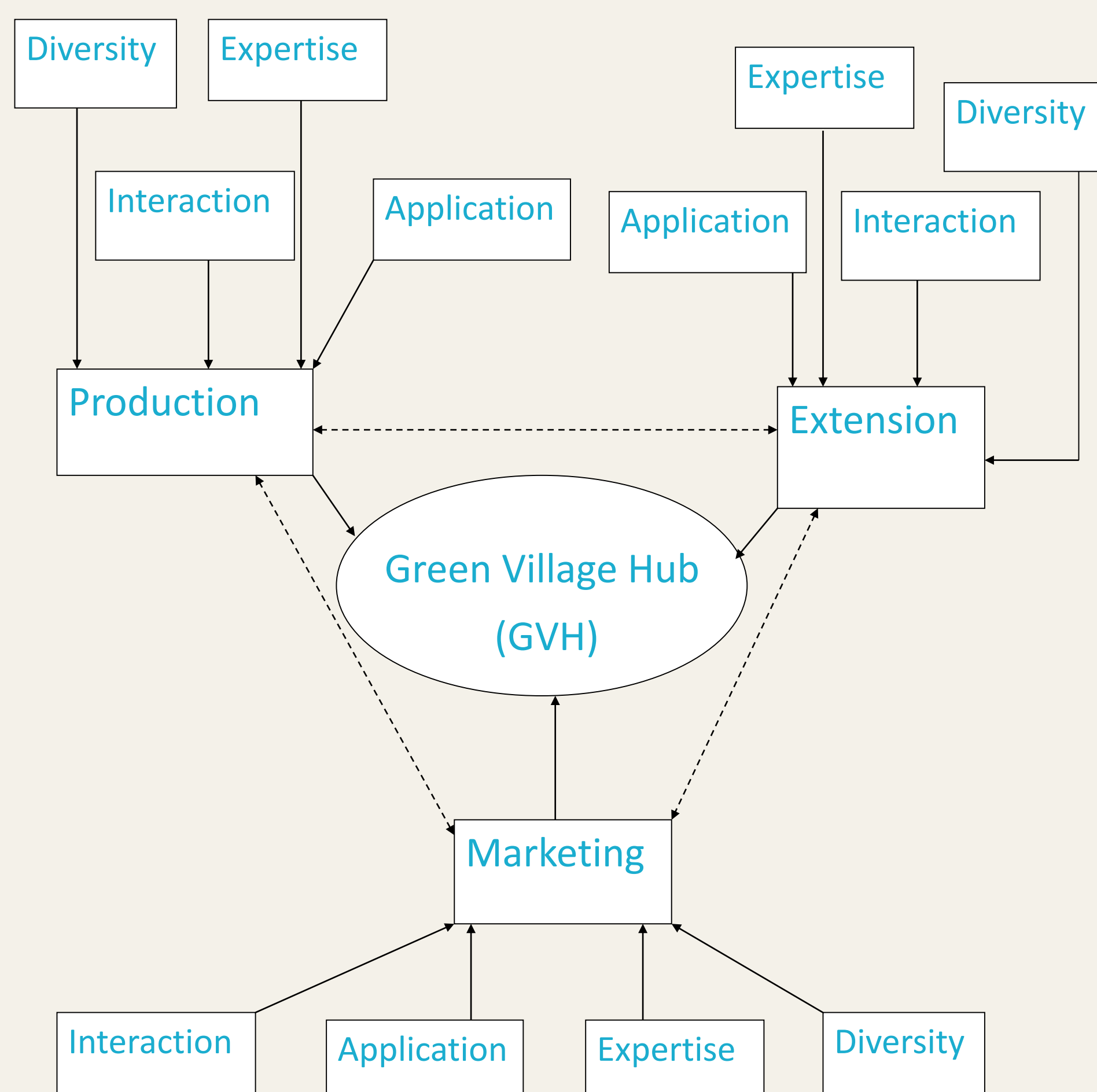


Figure 1: The conceptual framework of the Green village Hub (GVH)

## Results

This section presents results of the two objectives of the study:

- To characterize the marketing section within the GVH in Makueni County
- To determine the effect of GVH attributes on the choice of organic market information among smallholder in Makueni County

### Attributes of GVH

Attribute	Description	Levels
Interaction (Feedback frequency)	Frequency of visits to GVH	1=Daily 2=Weekly 3=Monthly 4=Annually 5 > 1 year
Expertise (Type of group)	Specialization of GVH	1=very low 2=low 3=neutral 4=high 5=very high
Diversity (Contracts)	Range of activities within GVH	1=very low 2=low 3=neutral 4=high 5=very high
Application (Practicals)	Options of practicals within the GVH	1=very low 2=low 3=neutral 4=high 5=very high

### Socioeconomic characteristics

Variable	Non GVH users Mean	GVH users Mean	Diff
Age (years)	31.99	32.55	-0.52
Distance to tarmac road (Kms)	2.46	2.62	-0.16***
Number of livestock owned	3.83	3.52	0.31*
Group size	4.69	4.02	0.67***
Number of dependants	8.58	9.07	-0.49
Land size(acres)	5.22	5.47	-0.25
Distance to GVH(Kms)	10.99	11.61	-0.62
Savings (Kshs)	81320.65	76752	4568.64
Annual Income (Kshs)	27064.50	31513.3	-4448.81**
Share of eggs sold	0.40	0.43	-0.03*

Level of significance \*-10% ,\*\*-5%,\*\*\*-1%  
\* 1 US\$= Ksh 105.60

## Determinants of Organic Market Information(OMI) preference

Dependent variable (OMI 1=Yes 0=Others)	Marginal effects	Std error
Age of household head	0.13**	0.05
Sex of household head (1=Male 0=Female)	0.33	1.05
Education level of household head	-0.20*	0.10
Household size	-0.14	0.25
Flock size	0.02	0.05
Land size	-0.02	0.23
Feed back frequency	0.19**	0.08
Practicals	0.48*	0.29
Type of group	0.14 *	0.08
Egg sold	-0.004	0.02
Contracts	0.66 **	0.24
Membership(Years)	0.29	0.20
Group size	0.04	0.04

Level of significance \*-10% ,\*\*-5%,\*\*\*-1%  
OMI- Organic market information

## Discussions

- Older household heads more likely to use the GVH for OMI
- Household heads with higher education levels are less likely to use GVH for OMI
- Feedback improves probability of using GVH for OMI
- Practical sessions within GVH increases the probability of using GVH for OMI
- Marketing groups and contracts increase the probability of using GVH by for OMI

## Recommendations

- GVH innovation should target welfare programmes for the elderly members of society
- GVH innovation should be promoted in sections with low levels of formal education
- Policy design should incorporate feedback and practicals in design of information hubs
- Contract farming should incorporate GVH in the marketing of organic products
- Marketing groups should be linked to GVH in Makueni County

## References

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