

Community Action in Integrated and Market  
Oriented Feed-Livestock Production in Central  
and South Asia

**Quantitative Methods in Market Research:  
Literature Review**

Kazakhstan, Kyrgyzstan, Tajikistan

**INFRASTRUCTURE, MARKET ACCESS, AND  
AGRICULTURAL PRICES: EVIDENCE FROM MADAGASCAR  
BY BART MINTEN**

- Determinants of the agricultural prices

$$\text{Price levels (P)} = f(\text{H, S, C, D})$$

H – hard infrastructure (transportation cost)  
S – soft infrastructure (transaction cost)  
C – possibility of choice of traders  
D – distance (regional dummies)

## **Analysis of the seasonal price differences**

- Seasonal spread =  $f(W, Cr, S, H, C, R, D)$

W – wages

Cr – access to credit

R – co-variant risk factor

## **The Effect of Market Concentration on Lamb Marketing Margins Gary W. Brester and Douglas C. Musick'**

- Relative Price Spread Model

$$M = f(P, PQ, MC, PPLT, RISK, CR4, D)$$

M – real farm-to-wholesale price spread

P – real wholesale price of lamb

PQ – produced quantity

MC – marketing cost (price index for energy prices)

PPLT – real price of lamb pelt

RISK – output price risk faced by packers (coefficient of variation of the real wholesale price)

CR4 – four-firm concentration ratio (market share)

D – monthly dummy variables

### ***The Evolution of Market Integration in Russia***

*By: Daniel Berkowitz and David N. DeJong*

- Analysis of spatial price differences

$Q_{ij} = f(\text{Transp. Cost, Trade share, Wage arrears, strikes, real income})$

$Q_{ij}$  – Percentage price differential in regions  $i$  and  $j$

### **Multinomial Logit Models**

by Ying So and Warren F. Kuhfeld

- **Generalized Logit Model**

It focuses on individual as the unit of analysis and uses individual characteristics as explanatory variables of choice (e.g. Age)

- **Conditional Logit Model**

In this model a choice among alternatives is treated as a function of the characteristics of the alternatives (e.g. Transit time for public transport, auto, plane)

## **Possible application in project research**

### **Lamb market competitiveness: Choice of traders by producers**

- This analysis can be based on the methodology used by Minten (1999). Responses of producers on a possibility of choice between different traders to sell lambs can be distributed among three options (those who can always choose, who can do it occasionally, and producers who never had a chance to choose traders). These data can be further analyzed using Logit regression method.

### **Choice determinants for access to remote rangelands by smallholder lamb producers**

- For many smallholder sheep producers grazing of their animals on remote rangelands remains a challenge. Deeper analysis is required to identify the way to surpass the major constraints including shortage of financial resources, scarce rangeland resources, land ownership, and lack of mutual trust among community members.

## **Goat mohair market analysis**

- In mohair market study the focus can be on conditions and circumstances leading to selection by mohair producers of the extent the mohair being produced should be processed for further marketing.
- The collected data can be analyzed to see whether it is possible to employ a quantitative approach. Particularly, study of above mentioned choice determinants among selling of raw mohair, sorted mohair, mohair yarn, or knitted goods can be undertaken.
- These determinants may include degree of market access (distance to the markets, existing market infrastructure) and market efficiency (expressed by the number of traders at the market, and the number of operation days).

**Thank You for attention!**