

# Marketing Channel Selection by Cattle Farmers in China: A Transaction Cost Approach

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## Outline

- Background
- Research method
- Research results
- Discussion and implications

## 1. Background

- Consumers demand for healthy and safe food, which has altered marketing ventures in the agri-food chains.
- Beef industry in China has increased faster than all other meats in the last two decades.
- An important feature of beef cattle industry—partnership between farmers, abattoirs, restaurants and supermarket.

## 1. Background (Contd.)

- Two implications: first it contributes to a better understanding of producers' choices. Second, this contributes to identifying which factors motivate or discourage producers from choosing marketing channels.
- There are three marketing channels by beef cattle producers: spot market, via dealer and directly to processor.
- Previous study shows that only 15% beef sold directly to processors.

## Livestock market



Livestock spot markets in Mengcheng County, Anhui Province.

## Procurement by processors



Taken in Anhui when processors procured cattle.



Cattle procurement in *Furun Cattle Industry*, Anhui.

## 2. Research method

- 2.1 Transaction costs economics
  - Production costs and technological changes alone are considered not to explain what happens in a convincing manner.
  - Two assumptions regarding human behaviour introduced by Williamson (1975, 1985): bounded rationality and opportunism.

## 2. Research method (Contd.)

- 2.2 Classifications
  - According to Clemons et al. (1993) transaction costs can be generally represented in terms of two major components:  
Transaction costs = co-ordination costs + transaction risk
  - Based on Hobbs (1996), transaction costs can be divided into three main classifications: information costs, negotiation costs, and monitoring (enforcement) costs .

## 2. Research method (Contd.)

- 2.3 Survey design
  - Williamson (1985, p. 390) highlighted difficulties of measuring transaction costs.
  - A structured questionnaire with a list of possible factors that will influence transaction costs was compiled and respondents were asked to rate whether different transaction cost aspects of using a marketing channel were a problem.

## 2. Research method (Contd.)

- 2.4 Logit model
  - The general hypothesis: a farmer's choice of cattle marketing channel is influenced by a number of transaction cost variables, but may also be influenced by the socio-economic characteristics.
  - The dependent variable is the binary value of cattle marketed through market and middlemen versus selling directly to meat processors.

# Fieldwork sites



# Fieldwork sites



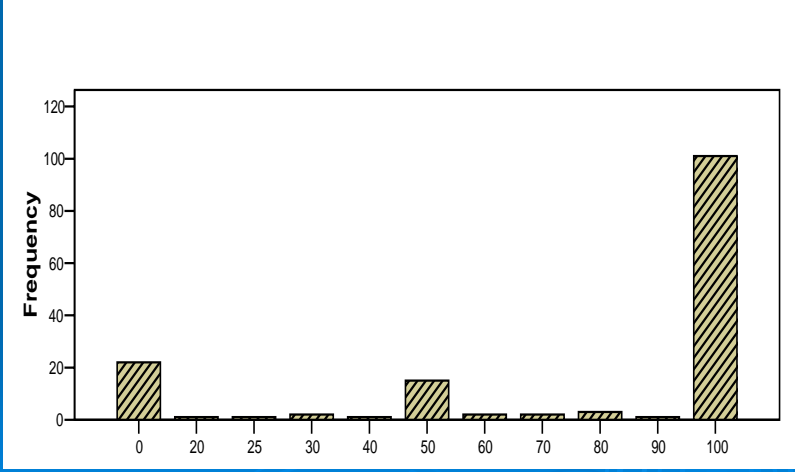
## Fieldwork sites



## Distribution of Survey Sample by Site

Province	Inner Mongolia	Anhui	Shandong	Total Sample
Number of Farmers	26	70	54	151
% of Farmers	17.88	46.36	35.76	

## Distribution of Households by Proportion of Cattle Sold through Spot Market



## Percentages of Cattle Sold Number by Single Marketing Channel

Marketing Channel	Market	Dealer	Processor/ Feedlot	Mixed*
Number of Cattle	225	590	1540	7968
% of Total Cattle	2	6	15	77

\* Respondents choose more than one channels at one time.

## Summary of Household Survey by Marketing Channel

Marketing Channels	Spot Market Channel	Direct Market Channel
Number of households	101	50
Contact type	1	2
<b><i>Information cost</i></b>		
Price fluctuation (3 classes)	1.12	1.04
Information access (5 classes)	3.12	3.38
Quality Inspection (2 classes)	1.85	1.40

## Summary of Household Survey by Marketing Channel (contd.)

Marketing Channels	Spot Market Channel	Direct Market Channel
<b><i>Negotiation cost</i></b>		
Payment delay (2 classes)	1.97	1.18
Payment delay time (weeks)	0.08	2.56
Bargaining power (5 classes)	2.97	3.36
Transport effort (3 classes)	1.83	2.21
Farm specialisation (4 classes)	1.81	3.36

## Summary of Household Survey by Marketing Channel (contd.)

Marketing Channels	Spot Market Channel	Direct Market Channel
<b>Monitor cost</b>		
Grade uncertainty (2 classes)	1.71	1.56
Farm service (5 classes)	3.23	3.23

## Summary of Household Survey by Marketing Channel (contd.)

Marketing Channels	Spot Market Channel	Direct Market Channel
<b>Social-economic characteristics</b>		
Investment (5 classes)	2.44	3.46
No. of cattle sold (head)	19.81	176.29
Education (7 classes)	2.62	3.04
Experience (3 classes)	2.81	2.71
Age (6 classes)	4.13	3.74
Ownership (2 classes)	1.99	1.88

### 3. Results of Logit Regression Model<sup>(a)</sup>

	B	S.E.	Wald	Df	Sig.
Payment Delay	4.796	0.809	35.116	1	0.000
Bargaining Power	-0.904	0.405	4.985	1	0.026
Farm Specialisation	-0.545	0.281	3.760	1	0.052
Constant	-2.832	1.591	3.167	1	0.075

Log likelihood = 67.68, Chi-square = 121.857, df = 3, sig. = 0.000, Nagelkerke R Square = 0.775.

(a): Method used for Logit regression is forward stepwise and the estimation terminated at iteration number 6 because parameter estimates changed by less than 0.001.

### 4. Discussion and Implication

- This study supports the hypothesis that transaction costs are significant in causing changes in farmers' marketing channel selections.
- With more bargaining power and more specialisation in the beef cattle, more farmers may choose to sell directly to meat processors to avoid market risks.

#### 4. Discussion and Implication (Contd.)

- It can predicted that the number of farmers choosing to use direct marketing channel will increase. It will help improve the quality of product in the supply chain.
- As marketing channel structure changes, new challenges will be created public and private policies.

Thanks.

Any questions?