



Factors affecting the frequency of selling of farm produce: evidence from Uttar Pradesh, India

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Presentation Outline

- Introduction and problem statement
- Objectives of the study
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- Conclusion and implications

Introduction

- Marketing of agricultural products in India is governed by the state level statutory bodies – the Agricultural Produce Marketing Committees (APMC) established under the Agricultural Produce Marketing Acts, which necessitate the surplus farmers to sell their produce at designated market yards
- However, farmers use a multiple channels for selling their produce and avoid government regulated markets due to lack of marketing technology and infrastructural & institutional support
- Little is known about individual farmer's behaviour about the frequency of selling their agricultural produce i.e. the total number of times in a crop year that a portion of the crop is sold by them.

Objectives of the study

- This study aims at evaluating the frequency of wheat and paddy selling by the farmers using a comprehensive primary survey data. The specific objectives of this research are as follows:
 - Assess the marketed surplus ratio across the farm sizes and sources of selling wheat and paddy by the farming community.
 - Analyse the frequency of selling wheat and paddy by the producers in a year.
 - Identify the most likely factors affecting the frequency of selling among the wheat and paddy farmers.

Data and methods

- This study is based on a comprehensive primary survey of 4779 farm households from a total of 12 districts, 48 corresponding blocks and 192 villages of one of the largest state – Uttar Pradesh, India.
- Multi-stage random sampling method was used to select representative farm households from the selected districts, blocks and villages.
- Data has been collected through personal interview using a structured questionnaire.
- A Poisson Count Data Regression Model (PCDRM) has been developed to identify the most like factors affecting the frequency of selling wheat and paddy by the farming households.

Socio-demographic profile of sample surveyed

Socio-demographic Variables	Frequency (N)	%
Gender		
Male	4676	98.8
Female	58	1.2
Age Group (Years)		
<25	259	5.4
26-40	1748	36.6
41-60	2163	45.3
>60	604	12.7
Education Level		
Illiterate	983	20.6
Primary	1315	27.6
Junior High School	1065	22.4
High School and Intermediate	1027	21.6
Graduate and above	374	7.9
Social Category		
General	2067	43.4
OBC	1346	28.3
SC/ ST	1348	28.3
Occupation		
Farming	4528	62.39
Service – government & private	554	7.62
Labour	1762	24.28
Business	336	4.63
Housewife and students	23	0.41
Unemployed	54	0.74
Annual household income (Rs.)		
Less than Rs. 20000	183	4.1
Rs. 20000-50000	1134	25.4
Rs. 50000-100000	1399	31.3
Rs. 100000-200000	1069	23.9
More than 200000	682	15.2
Landholding category		
Marginal (< 1 ha)	2708	56.7
Small (1-2 ha)	1143	23.9
Medium (2-4 ha)	625	13.1
Large (> 4 ha)	303	6.3

Production and level of marketed surplus

Type of farmer	N	Total Production (Qtl)	Quantity of Sale after harvest (Qtl)	Quantity sold after storage (Qtl)	Total sale (Qtl)	% Sold just after harvest	MRS(%)
Wheat							
Marginal	2186	29525	6196	2315	8511	72.8	28.8
Small	1233	33599	15526	3077	18603	83.5	55.4
Medium	748	30540	14832	4806	19637	75.5	64.3
Large	367	31439	17521	9874	27395	64.0	87.1
Overall	4534	125104	54074	20072	74146	72.9	59.3
Paddy							
Marginal	1363	20791	7770	2654	10423	74.5	50.1
Small	773	26929	14420	3740	18160	79.4	67.4
Medium	434	25256	16795	3286	20081	83.6	79.5
Large	209	20071	13771	3326	17097	80.5	85.2
Overall	2779	93046	52755	13006	65761	80.2	70.7

Frequency of wheat and paddy selling across landholding sizes

Farm Size	Number of farmers reporting				Total	Percentage of farmers reporting			
	No selling	Once	2-4 times	5 & Above		No selling	Once	2-4 times	5 & Above
Wheat									
Marginal	1435	551	158	21	2165	66.3	25.5	7.3	1.0
Small	339	605	213	31	1188	28.5	50.9	17.9	2.6
Medium	147	326	188	48	709	20.7	46.0	26.5	6.8
Large	41	171	100	40	352	11.6	48.6	28.4	11.4
Overall	1962	1653	659	140	4414	44.4	37.4	14.9	3.2
Paddy									
Marginal	625	423	116	6	1170	53.4	36.2	9.9	0.5
Small	122	270	125	19	536	22.8	50.4	23.3	3.5
Medium	53	114	81	7	255	20.8	44.7	31.8	2.7
Large	15	53	29	11	108	13.9	49.1	26.9	10.2
Overall	815	860	351	43	2069	39.4	41.6	17.0	2.1

Factors affecting frequency of selling – wheat and paddy

Parameters	Frequency of Wheat selling			Frequency of Paddy selling		
	β	Sig.	Predicted % change	β	Sig.	Predicted % change
(Intercept)	-1.563***	0.000		-1.374***	0.000	
AGE	-0.068	0.302	-6.6	-0.019	0.766	-1.9
EDU	0.118*	0.089	12.5	0.088	0.295	9.2
SOC	0.176***	0.010	19.2	0.056	0.441	5.8
AINC	0.605***	0.000	83.1	0.703***	0.000	102.0
OH	0.054***	0.000	5.5	0.161***	0.000	17.5
CI	0.003***	0.000	0.3	0.003***	0.000	0.3
NCG	0.071***	0.000	7.4	-0.113*	0.093	-10.7
MKTL	0.030	0.635	3.0	0.143*	0.052	15.4
ICT	0.392***	0.000	48.0	0.192***	0.001	21.2
Log Likelihood	-6442.468			-2490.654		
Likelihood Ratio Chi-Square	1084.786***	0.000	Df=9	520.353***	0.000	Df=9

***significant at the 0.01 level, **significant at the 0.05 level, *significant at the 0.10 level

EDU=Education level, SOC=Social Category, AINC=Annual Income, OH=Operational landholding, CI=cropping intensity (%), NCG=Number of crops grown, MKTL=Market linkage, ICT=Use of information and communication technology)

Conclusion and implications

- The level of marketed surplus for wheat and paddy increases with landholding sizes.
- Most of the surplus of wheat and paddy are being sold by the farmers just after the harvest.
- Majority of marginal producers are subsistence farmers and do not sell their wheat and paddy.
- Most of the farmers sell their produce in one lot, however the frequency of sales increases with an increase in landholding size.
- Education level, social category, income, landholding size, cropping intensity, number of crop grown and use of ICTs are more likely factors affecting the frequency of selling of wheat and paddy.
- This analysis provides insights on designing market linkage models for the farming communities.

THANK YOU