Member Communications in Cooperatives

U of Minnesota, Applied Economics

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Organization of the Presentation

- Overview of the Study
- Sample Description/Characteristics
- Analytical Results
- Conclusions

- **Overview of the Study**

Studies of Member Commitment

- Staatz (age, psychic connection, discount rate)
- Grey & Kraenzle (farm size, board participation)
- Fulton & Adamowicz (refunds, assured markets, full-time farmers)

Co-op Member Commitment

Commitment level likely related to:

- Member investment level
- Family history
- Age/Education
- Co-op performance (cash refunds, revolvement rate, price/service)
- Communications

Communications and Commitment

Interesting because:

- Fully endogenous variable for co-ops
- Multiple mechanisms for communications possible
- Subsets of members may have different communication preferences

Research Questions

- What factors are associated with the level of member commitment?
- What factors are associated with preferences for different communication techniques?

- Overview of the Study
- Sample Description & Characteristics

Study Design

- Mail survey sent to managers of 220 agricultural cooperatives in MN and WI (members of WFC or MAC)
  - 37 co-ops in final sample (17%)
- Mail survey of 60 members randomly selected from each co-op
  - 759 in final sample (34%)

Co-op Data Collected

- **Basic info** (date founded, number of members, tenure of manager, etc)
- **Recent structural changes** (merger, joint venture, consolidation)
- **Communication strategies used**
- Key **financial data** (sales, margins, etc.) for 1997-1999

Selected Co-op Financial Performance Variables

	Cooperatives per Category				
	<0	0-2.5	2.6-5	5.1-10	10.1+
ROE	5	12	7	8	5
	1.1+	.76-1	.51-.75	.26-.5	<.25
Debt/Equity	8	8	11	7	3
	76+	51-75	26-50	16-25	<15
Equity/Equity Revolved	4	8	14	6	5

Wide range of co-op financial performance

Member Data Collected

- **Demographic** (age, education, years in farming, employment, etc.)
- **Co-op involvement** (number of memberships, family history with co-op, board/committee participation)
- **Commitment** to co-op (0 - 100%)
- **Rating of communication vehicles** (newsletter, manger communications, web site, etc)

Selected Co-op Member Characteristics

Members per Category

	<30	31-40	41-50	51-60	60+
Age	22	136	266	172	161

	<High School	High School	Some College	College Degree
Education	40	336	229	149

	0-20%	21-40%	41-60%	61-80%	81-100%
Commitment	91	55	162	203	225

Good cross-section of agricultural community

Communication Options (% used)

- Communication with Employees
- Communication with Manager
- Newsletter (84%)
- Press Releases (44%)
- Annual Meeting
- Communications with Board
- Communications with Members
- Member Survey (51%)
- Focus Groups (16%)
- Electronic Communications (50%)

Member Ratings of Communication Options

	Percent Co-ops per Category				
	1	2	3	4	5
Communication with Employees	3	4	16	44	33
Communication with Manager	5	9	22	38	26
Newsletter	5	7	31	47	11
News Articles	6	8	32	45	9
Annual Meeting	8	11	32	30	19

Member Ratings of Communication Options (cont)

	Percent Co-ops per Category				
	1	2	3	4	5
Communication with Board	7	11	37	32	13
Communication with Members	5	9	41	36	8
Member Survey	11	13	45	26	5
Focus Group	15	19	47	16	3
Electronic	21	25	39	11	4

- Overview of the Study
- Sample Description & Characteristics
- **Analytical Results**

Analyzing Sources of Member Commitment

Sources of Member Commitment

- **Member characteristics** (e.g. age, education, etc)
- **Features of co-op structure** (number of sites, local assets, etc.)
- **Communication strategies** (newsletters, manager communications, etc.)
- **Financial characteristics** (Local ROE, debt-equity, etc.)

Estimation Procedures - Member Commitment

- Dependent variable (member commitment) restricted to range 0 - 100
- Two-Sided Tobit analysis
- Pseudo R^2 = .03

Member Commitment Results (Demographic Characteristics)

Variable	Coefficient	T-Statistic
Served on Board	16.79	3.86***
Education	-7.34	3.07***
Co-op Training	8.74	3.26***
Years Member	0.18	1.47
Age	-0.66	-0.05
Served on Cmte	4.80	1.34

*** = significant at 1%

Member Commitment Results (Co-op Characteristics)

Variable	Coefficient	T-Statistic
Intercept (Supply Co-op)	95.24	7.525***
Marketing Co-op	-24.98	-3.07***
Number Sites	-3.16	-4.95***
Consolidation	27.44	4.58***
Merger	-19.45	-3.91***
Type Revolvement	-13.12	-3.30***

*** = significant at 1%

Member Commitment Results (Co-op Characteristics, Cont.)

Variable	Coefficient	T-Statistic
New Gen Co-op	-.002	-2.91***
Number Members	0.001	1.28
Ave Tot Local Assets	.000003	1.12
Co-op Age	-0.12	-1.11
Service Co-op	-7.49	-1.12
Manager's Tenure	0.31	1.54

*** = significant at 1%

Member Commitment Results (Co-op Characteristics, Cont.)

Variable	Coefficient	T-Statistic
Equity/Member	0.001	1.58
Joint Venture	-3.36	-0.84

*** = significant at 1%

Member Commitment Results (Financial Performance)

Variable	Coefficient	T-Statistic
Local ROE	-66.65	-1.748***
Debt/Equity	-20.5	3.50***
Total Equity/Equity Revolved	-0.16	-1.601
Cash Refund/Total Refund	0.08	0.37

*** = significant at 1%

Member Commitment Results (Communication Techniques)

Variable	Coefficient	T-Statistic
Comm w/ Manager	5.45	3.53***
Press Release/Year	3.09	3.19***
Focus Group	-9.85	-1.83**
Newsletters/Year	0.95	1.29
Comm w/ Employees	-1.80	-1.19
Electronic Comm	-1.19	-0.31
Member Survey	-1.70	-0.46

*** = significant at 1%

** = significant at 10%

Analyzing Sources of Communication Preferences

Estimation Procedures - Communication Preferences

- Dependent variable – <u>relative</u> communication preference
- Analyzed each communication option using OLS
- Same set of independent variables: Age, Education, Years Member, Board Member, Committee Member, Manager's Tenure, Co-op Sites, Newsletters/Year, Press Releases/Year, Web Site, Marketing Co-op, Service Co-op, Merger, Consolidation, Joint Venture

Selected Communication Channel Results - Newsletter

- $R^2 = .06$ $F(16, 661) = 3.86$
- Significant Independent Variables (t-statistic)
  - Managers Tenure = .01 (1.76)
  - Co-op Education = -.11 (-1.70)
  - Number Newsletters/Year = .04 (4.09)
  - Press Releases/Year = -.02 (-1.87)
  - Web Site = .12 (1.85)
- Newsletters more effective with long-tenured manager, if more issued/year, and complimented by Web Site
- Press releases are substitute for newsletter

Selected Communication Channel Results - Annual Meeting

- Pseudo R^2 = .09 F(16, 663) = 5.05
- Significant Independent Variables
  - Education = -.24 (-3.93)
  - Board Member = .39 (3.55)
  - Committee Member = .20 (2.23)
  - Co-op Education = .15 (2.24)
  - Co-op Sites = -.01 (-.68)
  - Marketing Co-op = -.31 (2.01)
  - Merger = -.13 (-1.71)
- Annual meetings preach mainly to the choir and are avoided by members with more formal education.

Selected Communication Channel Results - Managerial Communications

- Pseudo R^2 = .06 F(16, 662) = 2.42
- Significant Independent Variables
  - Intercept = .74 (5.81)
  - Manager's Tenure = -.01 (-1.98)
  - Newsletters per year = -.02 (2.06)
  - Web Site = -.13 (-1.82)
  - Service Co-op = -.20 (-1.84)
- Managerial communication is important to most members and is particularly important for newer managers. Frequent newsletters and electronic communications are substitutes.

Selected Communication Channel Results - Employee Communications

- Pseudo R^2 = .08 F(16, 662) = 3.70
- Significant Independent Variables
  - Intercept = .82 (6.27)
  - Education Level = .21 (3.19)
  - Board Member = -.37 (-3.11)
  - Newsletters per Year = -.03 (-3.22)
- Board understands role, frequent newsletters are substitute, members in general and more educated members in particular value employee communications.

Selected Communication Channel Results - Electronic Communications

- Pseudo R^2 = .07 F(16, 645) = 4.18
- Significant Independent Variables
  - Intercept = -.68 (-4.61)
  - Education Level = .27 (3.84)
  - Manager's Tenure = .01 (1.77)
  - Newsletters per Year = .02 (1.94)
  - Marketing Co-op = .36 (1.96)
  - Service Co-op = .24 (1.88)
  - Joint Venture = -.24 (-2.73)
- Electronic communications unimportant to average member but those with more education prefer this. Newsletters are complementary

Selected Communication Channel Results - News Articles

- Pseudo R^2 = .06 F(16, 661)
- Significant Independent Variables
  - Age = .10 (3.64)
  - Education = -.12 (-2.29)
  - Years as Member = -.006 (-2.15)
  - Service Co-op = .20 (2.16)
  - Marketing Co-op = .30 (2.19)
  - Co-op Sites = .02 (2.26)
  - Press Releases/Year = -.02 (-3.07)
- Older members prefer news articles (but not too many per year!). More educated members don't.

Conclusions

- Communications with employees and the manager were most highly rated sources of co-op information.
- Many factors help determine member commitment, among these are key communication strategies (communication with the manager, newsletters)
- Different constituencies within co-op have distinct communication preferences