A paper presented at the NCR 194 Committee meeting
Kansas City, MO November 12, 1999

"Evaluating the Performance of Agricultural Cooperative Boards of Directors"

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Introduction

Directors of agricultural cooperatives are faced with setting the direction for increasingly larger, more complex organizations competing in a most demanding marketplace. For many farmer-directors, their current directorship involves governing the largest organization they probably have ever served as director of. Agricultural cooperative directors are typically not "professional" corporate directors, who might serve on a wide range of corporate boards across various segments of an industry. And so, cooperative directors experience may be limited to serving on boards of smaller organizations within a relatively narrow segment of an industry or on local public boards (ie. school, town, county or planning, etc.). The pool of potential directors in an agricultural cooperative can be less diverse than for other type of firms with candidates often having the same occupation, geographic proximity, gender or race.

As the business environment becomes more challenging, the demand for peak performance from everyone in an organization increases, including the board of directors. There has been increased interest among boards of directors in agricultural cooperatives for developing ways to evaluate their performance.

The authors, who are associated with the Cornell Cooperative Enterprise Program, have developed a board evaluation process which involves administering a survey questionnaire to individual directors as well as managers who work directly with the board to collect data on board performance. This study is based on an analysis of data collected from a total of eleven board of director evaluations.

Objectives

The objectives of the study are the following:

1. Develop a methodology for measuring board and individual director performance in a number of areas including: understanding of role and responsibilities, communication with members, board operations, board-management relations, strategic planning, marketing, finance, governance, and overall strengths and weakness of board performance.

2. Identify cooperative board performance areas which tend to indicate optimal or sub-optimal execution of duties.

3. Discuss the implications for director education programs. Suggest strategies for leveraging strengths and minimizing weaknesses aimed at improving overall board performance.

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Methods

The methodology adopted for this study involved the following approach:

1. A survey questionnaire was designed to rate board performance in a number of areas including board operations, director proficiencies, effectiveness of the chair, board politics and potential conflicting interests, management relations, as well as overall strengths and weaknesses of the board.

2. The questionnaire was administered to a group of eleven agricultural cooperatives in the U.S. who agreed to participate in an in-depth board evaluation process. The sample included 161 individual directors and 35 managers who interact directly with their boards.

3. Data collected from the questionnaires were tabulated and aggregated. Responses to the majority of questions were categorical, on an 1 - 5 scale (strongly agree to strongly disagree)..

4. A Chi-square "Goodness of Fit" analysis was conducted to determine whether the actual categorical responses differed significantly from a set of expected categorical responses. Responses for the five categories, (strongly agree, agree, neutral, disagree, and strongly disagree) for each question were tabulated. A chi-square goodness of fit test was used to test the null hypothesis that the difference between the observed values for each category and the expected values for each category equals zero. The formula for the chi-square test is:

$$X^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

where O_i is the observed value in cell *i* and E_i is the expected value for cell *i*. This value is distributed as chi-squared, with degrees of freedom equal to N-1. N is the total number of cells.

5. Results of the statistical analysis were reviewed and interpreted to determine common areas of higher or lower than expected responses for each performance variable.

The Sample

The cooperatives who participated in the study were self selected in that each organization agreed to undertake an in-depth director and board evaluation. Boards were evaluated over a ten year time period from 1989 to 1999. The size of boards the sample ranged from nine to twenty-three directors.

Size of Cooperatives in the Sample

The gross sales of cooperatives included in the sample are summarized in Table 1.

Table 1. Cooperative Sample Sales Volume

Total Sales	Number of Cooperatives
Under $50 million	2
50 million to 499 million	3
500 million to 1 billion	3
Over 1 billion	3
TOTAL	11

There was a wide span of gross sales by cooperatives participating in the study ranging from $15 million to over $2 billion in sales.

Location of Sample Cooperatives

Cooperatives in the study were located across the U.S. with headquarters in the Far west, Mid-west and the Northeast. Table 2 indicates the location of headquarters and member areas for the sample cooperatives. Membership areas spanned 26 states in every region of the country except the Southeast.

Table 2. Cooperative Sample Location

Headquarters and Member Areas by State	Number of Cooperatives
West: California, Washington, and Oregon	3
Mid-West: Michigan, Illinois, Indiana, Kansas, Missouri, Texas, Nebraska, Iowa, Colorado, Oklahoma, and Arkansas	3
Northeast: Ohio, Pennsylvania, New York, Vermont, New Hampshire, Rhode Island, Connecticut, Maine, New Jersey, Massachusetts, New Hampshire, Maryland, and West Virginia.	5
TOTAL	11

Type of Cooperatives

A number of different types of cooperatives participated in the study including: dairy service, dairy marketing, fruit and vegetable marketing, as well as integrated grain marketing and supply cooperatives. Table 3 describes the sample by the various types of cooperatives included.

Table 3. Type of Cooperative

Total Sales	Number of Cooperatives
Dairy Service	3
Dairy Marketing	2
Fruit & Vegetable Marketing	3
Supply/Marketing	3
TOTAL	11

The majority of the sample cooperatives were involved in the dairy industry either in suppling inputs, providing services to dairy producers, or marketing milk and value-added dairy products.

Questionnaire Design

The Questionnaire was designed to collect data on a wide range of performance areas of a typical cooperative board including: board operations and process, director proficiencies, clarifying the mission, strategic planning, effectiveness of the chair, minimizing politics and conflicting interests, understanding and maintaining director role, board-management relations, as well as overall strengths and weaknesses. Questions for each of these performance areas are further explained in the next section of the paper.

It should be noted that additional questions were formulated at the request of individual boards to help them assess such issues as: the size of the board, director nominating processes, and the use of outside directors. A complete set of questions analyzed in this paper and a summary of responses can be found in the appendix.

Board Operations and Process

Basic operating procedures required to support board functions were evaluated such as receipt of necessary materials prior to meetings, adequate meeting agendas, effective use of meeting time, length of meetings, focused discussions, and the level of participation by directors in discussions. Questions were formulated to measure the ability of the board avoid revisiting policy decisions made unless there was a major change in conditions affecting that decision and the ability of the board to unite behind decisions made even if individual directors were initially opposed or voted against it.

Director Proficiencies

A number of director proficiencies were evaluated encompassing the following: understanding role and responsibilities, potential liabilities of directors, member relations, evaluating strategic plans, evaluating marketing strategies, evaluating financial issues, knowing the difference between policy and day-to-day operations, as well as a thorough understanding of the mission and objectives of the cooperative. Directors were asked whether the cooperative had well defined mission for the organization as well as a well developed, written strategic plan.

The Effectiveness of the Chair

A number of performance dimensions were explored in regard to the effectiveness of the chair of the board. Questions were asked about the effective leadership of the chair in the

following areas: encouraging all directors to attend and participate in meetings, ability to work with all directors, conducting productive board meetings, arriving at best decisions for cooperative, dealing with difficult issues, and minimizing board politics. A question was formulated on whether the chair or other officers became involved in areas which were management's responsibility.

Minimizing Politics and Conflicting Interests

Directors were asked whether there were politics on the board or potential for conflicts having a negative impact on the cooperative. Potential conflicts were explored between the following groups: one district versus another, one state versus another, different factions on the board, board versus management. Questions were asked about the interests of subgroups of members dominating the board including: different size farm operations (small, average, large) and/or the interests of management.

Understanding and Fulfilling Director Role

Questions were formulated to determine whether directors had a good understanding of both their role as well as the role of management. Role of directors and management in developing policy were explored.

Board-Management Relations

A number of areas of board- management relations were measured including: spelling out expectations for the CEO manager, evaluating management, indicating strengths and weaknesses to managers, and management compensation. Questions were formulated to determine whether directors were not stepping outside their roles in areas of management's responsibility.

Overall Strengths and Weaknesses

Two open-ended questions were asked regarding board performance. One asked directors to identify overall strengths of the board. The other asked directors to identify overall weaknesses of the board.

RESULTS

Responses for the five categories, (strongly agree, agree, neutral, disagree, and strongly disagree) for each question were tabulated. A variable was created for the set of responses from each question.

Data Transformation

The data set for the five category responses contained a number of cells with zero frequencies. To comply with the assumptions for the chi-square test, the data were transformed into three categories by combining the frequencies for the strongly agree and agree categories as well as the frequencies for the disagree and strongly disagree categories resulting in three cells for the observed values. The expected frequencies for the three related cells for questions assuming agreement were: 110 strongly agree-agree, 31 neutral, and 20 disagree-strongly disagree.

A chi-square goodness of fit test was used to test the null hypothesis that the difference between the observed values for each category and the expected values for each category equals zero. The formula used for the chi-square test was:

$$X^2 = \frac{(O_i - 110)^2}{110} + \frac{(O_j - 31)^2}{31} + \frac{(O_k - 20)^2}{20}$$

where O_i is the observed value in cell i
where O_i is the observed value in cell j
where O_k is the observed value in cell k

The resulting sum is distributed as chi-squared, with 2 degrees of freedom. The expected values were calculated using the following probabilities for each of the corresponding cells: .683, .192, and .124. The expected frequencies were reversed for questions assuming expected disagreement.

The questions and related variables can be found in the appendix. It should be noted that eight variables had much higher levels of agreement (or disagreement) than was projected for the expected values. And so, the results of the chi-square test of the observed values for these variables shows a significant difference from the expected values but the difference results from an even stronger level of agreement (or disagreement) than expected. The chi-square test results for these variables are interpreted in the last column of the following table as "exceeds" the expected values. The rest of the variables which show significant chi-square scores would indeed have lower than expected values.

Table 4. Chi-square Goodness of Fit Results

Variable Name	Chi-square	∀ = .01 2df	Expected Values
RECEIVE	36.929	*	(exceeds)
AGENDA	4.453		
ONTIME	7.530		
LENGTH	14.698	*	(lower)
SIDETRA	50.994	*	(exceeds)
DOMINA	42.030	*	(lower)
MGRAREA	8.376		
ROLE	5.740		
LIABLE	4.418		
MEMREL	1.842		
SPLAN	21.916	*	(lower)
MKTPLAN	34.614	*	(lower)
FINAN	4.094		
POLICY	3.328		
MISSION	10.166	*	(exceeds)
EXPECT	6.974		
IMPLEM	68.500	*	(lower)
NOTDIS	3.191		
UNITE	10.583	*	(lower)
INDREQ	8.313		
NOPOLI	259.350	*	(lower)
CHENC	55.074	*	(exceeds)

CHEFF	13.344	*	(exceeds)
CHCON	10.679	*	(exceeds)
CHBEST	162.170	*	(exceeds)
CHDEAL	8.007		
CHMIN	4.235		
CONOTMG	.239		
ROLEMG	4.330		
EXPMGR	2.938		
EVALMGR	12.935	*	(lower)
FINETUN	60.237	*	(lower)
WMISIOND	10.110	*	(exceeds)
WSPLAND	23.976	*	(lower)
CONFDISD	23.439	*	(lower)
CONFSTD	20.399	*	(lower)
CONFBODD	24.732	*	(lower)
CONFMGTD	4.420		
DOMAVED	16.287	*	(lower)
DOMLGD	7.974		
DOMSMD	6.115		
DOMNATD	10.401	*	(lower)
DOMMGTD	5.174		

Board Operations and Process

Board operations such as: receiving necessary materials prior to meetings, creating adequate meeting agendas, starting and ending meetings on time received high ratings. Directors rated their boards lower than expected on the tendency for discussions to get side-tracked, and some directors tending to dominate meetings. Also, directors disagreed that meetings were the right length.

Directors responded positively that after a policy decision has been made, the issue is not discussed at future meetings unless there is a major change in underlying conditions.

Effectiveness of the Chair

Chairmen were given high marks for their performance in all of the leadership dimensions evaluated including: encouraging directors to attend and participate in meetings, working effectively with all directors, conducting productive meetings, arriving at the best decisions for the cooperative, dealing with difficult issues, minimizing board politics, and not becoming involved in areas of management responsibility. The strong ratings of the chair by fellow directors makes intuitive sense, in that chairs are elected (or re-elected) on their abilities to effectively fulfill their leadership role.

Minimizing Politics and Conflicting Interests

Several areas of conflicting interests that were having a negative impact on the cooperative's performance were identified such as: one district versus another district, one state versus another state(s), and different factions on the board. Directors strongly disagreed that there were conflicts between the board and management.

Directors strongly disagreed that there are no "politics" on their boards. Directors responded that the board was not dominated by the interest of the following groups: large commercial farmers, small farmers or management. Average sized farmers and national industry issues were identified as the source of potential board conflict. Agreeing that the interests of average size farmers could dominate board discussions may simply mean that the majority of members (and directors) are average sized farmers.

Understanding and Fulfilling Director Role

Performance areas for which directors tended to rate themselves highest included: understanding their role and responsibilities, being well versed in the potential liabilities of being a director, member relations, conveying accurate expectations to members concerning the coop's operations, evaluating financial issues, and knowing the difference between policy matter and day-to-day operational issues. Boards agreed that their cooperatives had well defined missions, objectives and goals, but disagreed that the cooperative had a well developed, written strategic plan.

Areas which received significantly lower than expected ratings included: contributing to and evaluating strategic plans, evaluating marketing plans and strategies. Directors disagreed that individual directors make special requests of management and employees.

Board-Management Relations

In the area of board-management relations, directors rated themselves higher on: spelling out what is expected of management, and having a clear understanding of the role of the board and the role management. Performance areas which directors tended to rate themselves lower on were: doing a good job of evaluating managers, and understanding the role of board and management in fine-tuning and approving policy.

Management Responses

The smaller size of the sample of managers did not allow use of the chi-square analysis of observed and expected management responses as was performed on the director response data. Further statistical analysis will be performed and published in a more in-depth research report on this study which will compare management responses with director responses (see appendix).

Although, preliminary analysis indicates that managers tended to agree with directors in most performance areas including: effective board operations, fulfilling director role and responsibilities, the effectiveness of chair leadership, and potential conflicting interest.

Managers tended to disagree with directors on the following questions: differentiating roles on developing and fine-tuning policy, evaluating financial issues, conveying accurate expectations to members, and knowing the difference between policy matters and day-to-day operational issues, spelling out what is expected of management, and a clear understanding of the role of the board and the role of management.

Limitations

There are a number of potential limitations to this study. Given that the survey process was very intensive, requiring a significant amount of time and commitment from directors and managers, there was a high cost to collecting the data for the participating cooperatives. This high cost along with the sensitive nature of analyzing board performance, limited participation in the study resulting in a relatively small sample.

The sample is not necessarily representative of the universe of agricultural cooperatives in the U.S. The sample included a higher percentage of larger volume cooperatives. The sample included a group of organizations willing to undergo the intensive board evaluation process

required to participate. The willingness to participate probably indicates boards who would tend to exhibit higher rated performance than the average.

Much of the data collected for analyzing board performance was ”self-reported” and may be biased in that regard. However, manager responses reinforced many of the director responses in assessing board performance.

IMPLICATIONS

Although some aspects of performance are unique to each cooperative board, this study points towards some common patterns of performance across agricultural cooperatives in general. Boards in the sample were more confident with their performance in some areas than others. Educators and trainers working with boards of directors of agricultural cooperatives should emphasize more work on subject areas for which directors rate themselves lowest. Gaps between director and management ratings may uncover areas which warrant more attention by directors and/or managers. Boards of agricultural cooperatives might consider expanding their pool of talent and experience beyond their membership base by utilizing non-member directors. Areas which additional expertise might prove useful could include: analyzing financial issues, strategic planning, marketing, and evaluating management.

Director Education

This paper points towards some areas of board performance which might be improved through educational efforts aimed at boards of directors of agricultural cooperatives. Some of the “fundamentals” of director education continue to need attention such as: understanding the role of directors and managers in developing and implementing policy, strategic planning, setting expectations for managers and evaluating management performance. All of these topics are often discussed in director education programs but may need to be reinforced with more contemporary cases and examples. As the size and complexity of agricultural cooperatives grows, these “fundamentals” can become more difficult to teach and understand.

An area somewhat unique to agricultural cooperatives is the degree of board “politics” and the potential for conflicting interests within the membership or representative bodies to have a negative impact on board performance. New analysis of the sources and dynamics of conflicting interests should be undertaken to develop better curricula to assist boards in avoiding these potential pitfalls. As cooperatives expand their geographic reach and membership area, this issue becomes more important.

As more cooperatives develop or expand marketing efforts in value-added activities or consumer products, the ability to create and evaluate marketing plans becomes paramount. Boards will have to be better positioned to determine what constitutes an effective marketing plan.

Summary

In general, the boards of directors that participated in the study exhibited effective operations and fulfillment of their responsibilities. However, directors identified a number of performance areas which could use improvement. Directors and managers concurred on evaluating a number of performance areas, although disagreed on some critical areas such as aspects of board-management relations and selected director proficiencies. Boards of directors of any firm, not just agricultural cooperatives, are well advised to periodically take stock of their performance and develop strategies for improving effectiveness.

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