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Cooperatives in a Changing Global Food System

Abstract

This study examines how U.S. agricultural cooperatives are responding to current trends toward the globalization of the agricultural and food sector. Information from three case studies illustrates the extent to which cooperatives' organizational structure may limit or enhance their ability to compete with investor-owned firms (IOFs) on a global scale. Concentration levels in key agricultural production, processing, and distribution markets are reviewed.

Next, the report examines new global strategies being employed by IOFs and their impact on farmer-owned cooperatives. The international activities of three regional cooperatives are examined in detail and data are used to highlight advantages and disadvantages that cooperatives may experience in global competition with IOFs.

Factors limiting international involvement by cooperatives include the diverse interests of their members, ties to domestic resource bases and social groups, the high risk levels and long-term nature of international investment, and symbolic barriers, including language barriers and the different connotations of the term "cooperative" in other nations.

Potential advantages for cooperatives include their reputation as reliable, high-quality suppliers and ethical business partners and their ability to meet specialty, niche demand created within a global food system. Cooperatives must seek opportunities in the new global system that their organizational structure makes them uniquely qualified to fill. They must also seek member response to questions of international involvement and encourage a spirit of "permanent innovation" among cooperative members and staff. Finally, cooperatives must enhance the potential social, cultural and economic benefits from international cooperation for their membership.

Key words: agricultural cooperatives, concentration, globalization, agency theory

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Cooperatives in a Changing Global Food System

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Michael F. Seipel

William D. Heffernan

University of Missouri-Columbia

Department of Rural Sociology

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Preface

Transnational corporations (TNCs), with little or no loyalty to any country, are currently redefining the way food is produced, processed, and consumed. These agribusiness firms use the flexibility offered by their multiple-nation locations to source commodities from least-cost origins around the globe, reconstitute them into food products, and deliver them to consumer markets throughout the world. They can also strategically locate processing plants in various countries based on raw material supply, infrastructure, labor cost and availability, and regulatory considerations. Agricultural cooperatives with ties to resource bases and social groups within particular nations may be limited in their ability to pursue such strategies. So, how can cooperatives compete in this new global food system?

This report explores issues raised for cooperatives by the globalization of agriculture and food. Information from three case studies illustrates the extent to which cooperatives' organizational structure may limit or enhance their ability to compete with investor-owned firms (IOFs) on a global scale.

First, we examine the level of concentration in key agricultural production, processing, and distribution markets, the new global strategies being employed by IOFs, and how these two related phenomena impact farmer-owned cooperatives. Next, we discuss the set of concepts known as agency theory and demonstrate how it can contribute to our understanding of the dynamics of a decision by a cooperative to pursue international involvement.

Strategies of three regional cooperatives with significant international involvement are examined. The decisions made and challenges faced by these three cooperatives provide insight into globalization issues. Based on the three case studies, we discuss some general advantages and disadvantages that cooperatives may have relative to IOFs and global competition. Recommendations are made on how cooperatives might position themselves to take advantage of the strengths offered by their organizational structure.

Contents

Highlights

This report places the challenges currently confronting farmer cooperatives within the context of the growing globalization of agricultural and food markets. Cooperatives have long been used by producers to address problems of market failure and balance the unequal bargaining power encountered in the marketplace. However, the viability of cooperatives as an organizational form, and the ability of farmers to retain a direct presence in agricultural markets, are currently being challenged by the emergence of a global food system.

Transnational agribusinesses are currently shifting capital and technology from nation to nation to capitalize on supply costs, labor availability, and favorable regulations. U.S. cooperatives, because of their close links to physical assets and member-owners in a particular country, are less able to duplicate these strategies. So cooperatives must find ways to compete globally that do not compromise their commitment to member service. Their very survival may rest on their ability to do so.

U.S. agricultural markets are quite concentrated at the national level. In every staple commodity sector except turkey production and processing, four firms control 40 percent or more of the market. Many firms, such as Cargill, ConAgra, and Archer Daniels Midland (ADM), are among the top four firms in multiple sectors. In the last decade, these firms have moved to open strategic production and processing operations in other countries. The three major beef-packing firms in the United States now dominate all of North America and are moving aggressively into Australia and South America. Cargill has demonstrated the mobility of modern livestock production technology by duplicating a U.S. broiler production system first in Thailand and then in China to take advantage of low-wage labor.

Some large regional cooperatives are attempting to compete with these investor-owned firms (IOFs) at the international level. Land 0' Lakes is active both in international development in lesser-developed countries, and in international marketing of its dairy foods and feed products. The cooperative has recently been very active in the expanding manufactured feed market in Eastern Europe.

Harvest States Cooperatives is a long-time exporter of U.S. grain and grain products. In recent years, it has attempted to strengthen its competitive position through joint ventures with investor-owned agribusiness firms for the marketing and processing of members commodities. The cooperative is currently establishing stronger ties in Mexico and seeking to build relationships with end-users of export commodities in other nations.

Farmland Industries also has expressed a strong commitment to becoming a global company. The cooperative currently exports grains and oilseeds, pet food, feedstuffs, fresh and processed beef and pork, lubricants, and fertilizer. Farmland recently increased its international presence by purchasing a Swiss-based grain trading firm. These cases highlight the limitations and advantages of international activity by cooperatives.

The diverse interests of the membership in a regional multi-commodity cooperative may present a constraint to international involvement because of the often commodity-specific nature of international ventures. Agricultural cooperatives' ties to domestic resource bases, both facilities owned by the cooperative and the assets of farmer-members, may also inhibit international investment which might be perceived to devalue these domestic assets. The risk level and long-term nature of international investments may also deter members of agricultural cooperatives. Different meanings associated with cooperative business forms in formerly centrally-planned economies may create additional obstacles for cooperatives attempting to become established in these nations. Finally, language and other cultural barriers may limit true international cooperation.

Cooperatives also enjoy several potential advantages in the global food system. They are perceived to be reliable, quality suppliers and ethical business partners. This makes it easier to establish working relationships with end-users in other nations. The macro-level trend toward globalization is also creating many localized niches in the food system, and cooperatives may be uniquely positioned to fill these by capitalizing on their decentralized operating structure.

For cooperatives to successfully compete in the emergent global food system, they must take advantage of the unique opportunities offered by their organizational structure instead of attempting to compete directly with transnational agribusiness firms. The first step is to seek suggestions from members so that international strategies can be designed to fulfill the multiplicity of goals that members may have for their cooperative.

International activities can then be pursued to enhance member service as well as earnings. Cooperatives can also help their members compete internationally by developing alternative products and markets, and looking for innovative ways to add value to traditional commodities. Designing products to fit the demand niches created within a global food system will require decentralization of decisionmaking and a spirit of innovation from both members and management. Finally, cooperatives must evaluate international opportunities on their potential social and cultural merits, as well as on the level of economic return they offer in order to fully realize the potential benefits of international cooperation. The globalization of the agricultural and food sector entails creating many intricately intertwined local, regional, and international food production, distribution, and consumption networks. Within this system, there will be many roles for cooperatives to fill.

Cooperatives in a Changing Global Food System

Michael F. Seipel and William D. Heffernan,
Department of Rural Sociology,
University of Missouri-Columbia

Agriculture in the United States has historically been one of the best examples of an economically competitive system. Millions of farmers purchased limited supplies from thousands of relatively small farm supply firms. The farmers sold their products through hundreds of markets to a vast number of processors. Within a given geographic area, however, transportation capabilities limited the number of markets to which any group of farmers had access. Ironically, as time went on and farmers began to rely more heavily on purchased supplies and depend on commercial markets, competition at the local and national levels declined.

Farmers sometimes responded to this lack of competition or "market failure" by mobilizing in protest. These farmers often blamed their economic woes on the "cost-price squeeze" brought about by middlemen who obtained a disproportionate amount of the economic benefit of agricultural supply and commodity marketing at the expense of farmers.

Early in the history of farmer movements, railroads, lending agencies, equipment manufacturers, and others were the focus of attention. Shortly after the Civil War, the Patrons of Husbandry (Grange) was started as a collective effort by farmers to address some of their concerns. The Grange and other farmer organizations were closely linked to broader social movements of the time, especially the Populist movement.

Farmers also responded to market failure by forming local cooperative associations to purchase supplies and provide services to a few members. In 1922, the Capper-Volstead Act provided legitimacy to farmer attempts to level the playing field in agricultural supply and commodity markets. Cooperatives soon found that to ensure continued service to members, they must ensure their own survival through growth and profitability. As investor-owned firms (IOFs) consolidated control of agricultural markets at the regional and national levels, local cooperatives responded by forming regional federations to provide a "competitive yardstick."

In the intervening years, cooperatives and IOFs and the markets in which they compete have continued to grow in size and complexity. Farmers in the late 20th century continue to seek ways to work together, often through cooperative associations, to collectively counter the economic efficiency and power of large IOFs. However, the ability of cooperatives to continue to provide their traditional "competitive yardstick" function in this new "global food system" is being challenged not only by the sheer size of their competitors, but by the flexibility offered by their multiple-nation locations.

Globalization and Concentration Implications

Concerns about the unequal distribution of economic power in agriculture voiced by farmers more than a century ago still ring true today. Table 1 indicates that many food processing firms achieve greater than a 20 percent return on their investments. By contrast, farm management data from many Midwest States suggests that most farmers receive only a 2 percent to 4 percent return on their investments.

A century ago, farmers facing a local monopoly or monopsony joined to purchase supplies or market products with a relatively small investment and limited organizational complexity. Today, however, the increasing concentration of food processing and marketing in the hands of a few transnational corporations (TNCs) is bringing about the possibility of market failure for farmers and consumers, not just locally, but on a regional, national, or global scale. The levels of capital and human resources necessary to avoid such massive market failure are much greater. Therefore, farmer cooperatives are taking on much higher risks in attempting to compete in this global food system.

Today, most of the major farm commodities produced in the Midwest move into an oligopolistic market system at the national level. Table 2 indicates that within every commodity sector except turkeys, 40 percent or more of processing is controlled by four firms. Although debate continues on what constitutes an oligopolistic market, much of the economic literature suggests that when four firms control 40 percent of the market, they can exert influence on the market unlike that in competitive systems.

Table 2 also indicates that many of the same firms are involved in the processing of multiple commodities. Firms like ConAgra, Cargill, and Archer Daniels Midland (ADM) rank among the top four in several commodities. Some observers of change in the food system argue that for certain activities, like pork slaughter, one set of firms has simply replaced another set like Swift, Armour, Wilson, and Cudahay, that existed half a century ago. But in fact, the movement of IOFs into the processing of several commodities represents a qualitative difference. It allows such firms to cross-subsidize. Firms operating in multiple commodities can survive a major loss in one commodity area if they are making significant profits in other areas.

In the past decade, two major catfish cooperatives (Southern Pride and Delta Pride) had problems competing against firms which were able to cross-subsidize. The cooperatives survived despite the fact that their IOF competitor's annual reports showed a loss for at least 2 years in the catfish division.

The third change evident from the table is the vertical integration in the food system. Although vertical integration began receiving considerable attention by farmers 30 to 40 years ago in the poultry industry, the complete integration from "seed to shelf" has occurred quite recently.

In its annual report, ConAgra claims to be the largest distributor of agricultural chemicals in North America and one of the largest fertilizer producers. It entered the seed business in 1990. ConAgra owns 100 elevators, 2,000 railroad cars, and 1,100 barges. It is the largest turkey producer and second largest broiler producer. It produces its own poultry feed and other livestock feed. It also owns and operates hatcheries. ConAgra hires growers to raise its birds and processes them in its own facilities. This broiler meat can then be purchased as fryers under the name of Country Skillet or in further processed foods such as TV dinners and pot pies under the Banquet and Beatrice Food labels.

From the basic raw materials for agricultural pro-

Table 1— The World's Dominant Food Companies

United States	1993 Sales'	Rate of Return**	European**'		1993 Sales
	(bil $)	*percent*			(bil $)
Philip Morris	50.6	36.7	Nestle S.A.	(Swz)	36.3
ConAgra	21.5	18.7	Nestle France	(Fra)	4.3
RJR Nabisco	15.1	1.6	Nestle Deutschland	(Ger)	4.0
Sara Lee	14.6	21.1	Nestle UK	(UK)	2.5
IBP	11.7	8.2	Unilever	(UK/Neth)	21.6
ADM	9.8	13.2	Deutsche Unilever	(Ger)	4.1
General Mills	8.1	42.8	Unilever France	(Fra)	2.9
Ralston Purina	7.9	27.6	Grand Metropolitan	(UK)	12.1
H.J. Heinz	7.1	25.4	Groupe BSN	(Fra)	10.7
CPC International	6.7	23.9	Kraft Jacobs Suchard	(Swz)	9.1
Borden	6.7	5.8	Eridania Beghin-Say	(Fra)	8.6
Campbell Soup	6.6	16.5	Allied Lyons	(UK)	7.7
Kellogg	6.3	31.8	Dalgety	(UK)	6.7
Quaker Oats	5.7	24.6	Assoc. British Foods	(UK)	6.5
Farmland Industries	4.7	na	Hillsdown Holdings	(UK)	6.0
Tyson Foods	4.7	20.9	Tate & Lyle	(UK)	5.7

Sources:*Fortune, April 18, 1994
"Forbes, January 3, 1994 (annual average return on equity)
'*Chilton's Food Engineering International, June, 1994

Table 2— **Largest Four Firms and Combined Market Share in Agricultural Commodity Markets**

Broiler Production and Processing	**Turkey Production and Processing**
Largest four control 46% of production	Largest four control 35% of production
Tyson	ConAgra
ConAgra	Rocco Turkeys
Gold Kist	Hormel (Jennie-0)
Perdue Farms	Carolina Turkeys
Beef Slaughter	**Flour Milling**
Largest four control 72% of slaughter	Largest four control 71% of milling
IBP	ConAgra
ConAgra	Archer Daniels Midland
Cargill	Cargill
Farmland Industries	General Mills
Beef Feedlots	**Soybean Crushing**
20 feedlots market over 50% of fed beef	Largest four control 76% of processing
Continental Grain	Archer Daniels Midland
Cactus Feeders	Cargill
ConAgra (Monfort)	Bunge
Cargill (Caprock)	Ag Processing (AGP)
Pork Slaughter	**Dry Corn Milling**
Largest four control 45% of slaughter	Largest four control 57% of milling
IBP	Bunge
ConAgra	Illinois Cereal Mills
Cargill (Excel)	Archer Daniels Midland
Sara Lee	ConAgra (Lincoln Grain)
Sheep Slaughter	**Wet Corn Milling**
Largest four control 70% of slaughter	Largest four control 74% of milling
ConAgra	Archer Daniels Midland
Superior Packing	Cargill
High Country	Tate and Lyle
Denver Lamb	CPC

Source: Concentration of Agricultural Markets, Fall 1994

duction to the retail store, a major proportion of the total system is owned and controlled by ConAgra, the second largest U.S. food processor (behind Philip Morris), and the fourth largest in the world.

Some large, regional cooperatives have also remained competitive at the national level by in part following the example of IOFs. Gold Kist is the third largest producer of broilers, Farmland Industries ranks fourth among beef processors, and Ag Processing (AGP) is the fourth largest U.S. soybean processor. However, in the last decade, the most meaningful changes in the concentration of agricultural markets have occurred at the global level.

Concentration of control in some sectors of the global food system is not new. At the turn of the century, seven closely held family firms controlled the global grain trade. But it was not until the 1970s that the global grain market became so critical to the economic well-being of U.S. grain and oil crop farmers. As these farmers became more dependent on the global market to establish the price of their commodities, they again realized the unequal nature of the power relationship between themselves and the large IOFs. Although farmer-owned cooperatives originate much of the grain from the farm level, this grain frequently must pass through the facilities of their competitors to access the export market. In the process, cooperatives and their farmer-members begin to lose their own identity and increasingly come under the control of the IOFs.

Recent trade journals report that TNCs like Cargill and Continental each control about 25 percent of the international grain market. ADM, which has recently acquired the U.S. operations of Louis Dreyfus and portions of Ferruzzi, controls another quarter of the U.S. grain that moves in global markets. These TNCs often are involved in more than just delivering the products to a country. They own grain handling and processing facilities in many countries.

For example, Cargill has operations in 60 countries. Its chief financial officer reports it generated more than $2 billion in revenue per year, most of which will be reinvested someplace in the world. Often, profits generated from the U.S. food sector will be reinvested in other countries, leading to direct competition with food products produced in this country.

Qualitative changes in the food system, brought about by horizontal and vertical integration at the global level during the past decade, continue to challenge the ability of farmers to retain an independent identity as an essential component in the food system. Three examples will demonstrate the nature of this challenge.

The first underscores the movement of foreign-based TNCs into the United States. Sometimes these firms compete vigorously with one another in certain parts of the world and in certain products, but at other times and in other places form joint ventures. Ferruzzi from Italy joined forces with Mitsubishi from Japan to establish Innovative Pork Concepts (Indiana Packing), and constructed a state-of-the-art hog slaughtering facility. They then signed an agreement with Cotswold Pig Development Company, one of England's primary breeding companies, to provide the genetic stock for this highly controlled pork production and processing system.

The second example focuses on the beef industry. In the past decade, the Canadian beef industry has been restructured as the result of the activities of TNCs. In 1987, ConAgra acquired Monfort beef operations, the dominant beef facility in the northern Great Plains. Soon after that action, Cargill moved across the border into Alberta, Canada, and set up that country's largest beef slaughtering operation. At the time, Canada Packers was Canada's largest manufacturer of livestock and poultry feeds, largest cattle slaughterer, only national poultry processor, and Ontario's largest hog slaughterer.

Shortly thereafter, Canada Packers began experiencing very serious financial problems. Eventually, it was bought by Hillsdown of England and "exited the fresh beef market." In the past few years, much of the cattle from northern Alberta has moved into the Monfort feed lots and then to slaughter, or directly to slaughter from Canada. In recent months, IBP purchased Lakeside Packers to give the three major beef slaughter firms in the United States dominance in all of North America.

In the late 1980s, ConAgra purchased half interest in Elders, the dominant beef slaughtering operation in Australia. It is the largest exporter of beef and lamb in the world. Shortly after the Conagra-Elders purchase, Mitsubishi began constructing new beef slaughtering facilities in Australia. Most recently, Cargill purchased beef slaughter facilities in Australia. Cargill also has operations in Brazil, Honduras, and Mexico. ConAgra has recently shown interest in the largest beef slaughter facilities in New Zealand. Although these firms presently control only a small proportion of the beef that is consumed worldwide, they control the major portion of beef that is traded in the global market.

A third example comes from Thailand and represents, perhaps, the best example of how the TNCs operate across national borders. Fifteen years ago, Thailand was not considered an important commercial producer of poultry. A local agribusiness firm, the G-P Group, formed a joint venture with Arbor Acres to obtain access to the best genetic stock in the world and a joint venture with Continental to gain access to feed grain and nutritional information. Months later, the G-P Group began to duplicate the U.S. poultry production system in Thailand. Within a couple of years, Cargill also duplicated the U.S. poultry production system in Thailand. Cargill formed a joint venture with Nippon Meat Packers, the largest meatpacker in Japan, to gain access to the marketing and distribution system in the Far East. Today, Thailand ranks seventh in the world as a poultry exporter.

In Thailand, the firms found both farmers and processing plant workers who were willing to work for much lower wages than their U.S. counterparts. Processing plant wage rates were well under $5 per day in rural Thailand. As economic growth led to a doubling of the wages in Thailand (still under $10 per day), both firms began similar operations in China and other countries in the region where workers still work for less than $5 per day.

Thailand is an excellent example of the emerging organization of the new global food system. This example underscores the fact that in the global food system, both capital and technology are highly mobile. Capital and technology can be transferred to any country in the world, almost instantaneously. The question global firms then face is that of how to combine the other factors of production most effectively.

Under the name of Sun Valley Thailand, Cargill, Nippon Meat Packers, and Thailand have developed organizational arrangements to take advantage of each partner's strength. Cargill supplies the production technology and social relations; Nippon Meat Packers supplies the access to markets; and Thailand provides the low-cost feed and labor, plus a "friendly business climate."

Given that capital and technology are constants, the four major costs of producing meat are labor, feed, transportation, and government regulations (such as those applied to the environment or the health and well-being of farmers and other workers in the food system). TNCs roam the world seeking production and processing sites that offer the most favorable combination of these four classes of inputs, an activity known as "global sourcing." Because cooperatives have developed within specific national contexts, and generally continue to be owned by producers within a particular nation, they lack the same freedom to shift production and processing around the globe. This global sourcing presents the strongest challenge to cooperatives ability to compete in this new global food system.

For several years, researchers at the University of Missouri have been documenting this globalization by tracking the international activities of TNCs active in food production, processing, and distribution (Bonanno, et al.; Heffernan; Heffernan, et al.). The increasing concentration of food processing and distribution in the hands of a relatively small number of these TNCs raises the question of whether cooperatives will be able to continue to compete in this emerging global food system.

The purpose of this report is to examine the extent to which agricultural cooperatives are currently competing internationally with the food TNCs, the challenges cooperatives face, and the strategies being employed by the most active and successful cooperatives. Previous cooperative research and the agency-theory literature suggests that cooperatives unique organizational structure might generate conflicts between members and management over international involvement.

Agency-Theory Approach

The small size and informal organizational structure of early cooperatives often allowed for consensus-based decisionmaking with participation from all active members. This form of governance, based on the model of participatory democracy, was in keeping with their concept as voluntary organizations. They depend on a high level of participation from their membership that is often based on a personal commitment by the member to the goals of the organization (Garkovich and Bokemeier). However, the attempt to provide reliable, efficient service to their members led to what Paul Lasley (Iowa State) has described as a "dual objective" for cooperatives: the need, as voluntary organizations, to maintain a high level of member involvement, coupled with the business organization mandate to generate a profit and survive in a competitive marketplace.

These two objectives often proved inherently contradictory. However, cooperative leaders realized that to have the opportunity to achieve the first objective, member participation, they must meet the second objective, economic survival, and over time the economic function came to dominate cooperative decisionmaking. For cooperatives competing in relatively concentrated agricultural markets, survival normally entailed growth, which often lead to reduced member participation.

As cooperatives grew in size and complexity, it became necessary to delegate authority for operational decisions to a hired staff familiar with the cooperative's specialized operations. The model of governance shifted from participatory democracy to representative democracy. Members maintained control through voting in the election of a board of directors which was responsible for selecting a manager, making strategic decisions for the cooperative, and representing members interests to the manager.

In this type of organization, the manager is seen as an agent, hired to act on behalf of, and in the best interests of the principals-the cooperative membership. However, the assumption that the manager will always follow the directives of the principals has been challenged by organizational theorists. The set of concepts known as agency theory has been most fully developed by authors Jensen, Meckling, and Fama, and has previously been applied to agricultural cooperatives by Vitaliano and Condon.

Agency theory suggests that a manager's interests may be quite distinct from members, and as such the manager attempts to operate the cooperative based on goals other than those of maximizing member service or member profitability. To prevent the manager from actively pursuing these alternative goals, members must monitor the manager's behavior. The expenses associated with such oversight are known as agency costs. The elected directors on the cooperative's board can be analyzed as agents, rather than principals, if they advocate policies of personal benefit to them if unmonitored.

The principals of any organization must structure a set of controls and incentives to obtain performance by agents, and be able to monitor results. For many IOFs, increased value of the firm is the goal, and the stock market provides a monitoring mechanism. In a cooperative, members do not have an equivalent monitoring mechanism. Cooperatives are service organizations rather than investment entities. Members usually take a customer approach by monitoring performance in relation to what the competition offers. Unlike a customer, a member is a principal, with equity in a cooperative and a greater stake in its success as a business. Determining appropriate agent rewards and obtaining effective performance is a complex challenge for cooperatives. They are concerned with many aspects of performance and have no reference to a stock market for evaluating the worth of the cooperative.

The managerial labor market also plays a role in creating incentives for manager behavior in both cooperatives and IOFs. Managers realize their compensation and the subsequent demand for their services are based on the current performance of the company, as reflected by sales growth or earnings. This may lead the manager to focus efforts on those activities that increase margins and enhance the manager's own marketability.

Members may perceive that this single-minded focus on earnings or sales growth results in the neglect of other activities that could enhance member service or meet other member goals. Ironically, as some students of agricultural cooperatives have noted, management's desire for long-term growth may actually serve to protect the cooperative as a "going concern" from the behavior of members who are mainly concerned with immediate and tangible benefits to be gained from the market and often have an incentive to underinvest in their cooperative (Murray; Staatz).

The creation of a "division of labor" between management and board of directors regarding decisionmaking also plays an important monitoring role. Decision management, the initiation and implementation of operating strategies, rests with hired managers. Decision control, the ratification of strategic decisions, rests with the directors. It is meant to set the parameters within which management operates on a day-to-day basis.

In an IOF, the board often includes "outside experts" who are well versed in the firm's primary operations. Cooperative boards are often composed largely of farmers, whose expertise is in production agriculture. As large, diverse cooperatives pursue business activities that are increasingly removed from their members' and directors' agricultural experience, oversight is weakened. In the extreme case, the board may become merely a rubber stamp for management decisions.

The framework of agency theory helps highlight the complexity of a decision by a cooperative to pursue international involvement. Like any investment decision, international involvement promises varying payoffs for different groups of members and managers within the cooperative. The decision to initiate an international investment is usually part of an overall growth and/or diversification strategy for the cooperative. This serves to fulfill management's goal of continued growth, a goal often shared by some groups of members. Others may resist such investment due to the actual or perceived higher risk level associated with international ventures. For them, foreign investment also represents the delegation of operational control to agents separated from them by both bureaucratic hierarchy and great physical distance. This further increases difficulty in monitoring. Overseas investment, especially in processing facilities, also tends to be commodity specific; it may enhance the market for one commodity produced by some members, but does little for other members products. Those who don't profit from the overseas facility may pressure cooperative leadership to direct capital to other ventures, such as domestic processing.

The theoretical framework of the agency theory helps in understanding the international investment strategies pursued by the three cooperatives analyzed here, as well the potential conflicts that may arise between different groups of members and managers.

Methodology

Information used in this research was gathered from an analysis of secondary data and interviews with key cooperative management personnel. Initial informational requests were sent to 75 cooperatives perceived to have widely differing levels of international involvement.

Annual reports and other pertinent information were received from 25 of these cooperatives. Based on our prior knowledge of them, it appeared that most of the cooperatives that didn't respond had little or no international involvement. This material, along with previously published research, provided an inkling of international activity by these cooperatives. In some cases, followup contacts were made to clarify information. From these 25 cooperatives, three regional cooperatives were selected for a more in-depth analysis.

The cases examined in this report were selected because all were highly involved in global agricultural and food markets. They are all diversified regionals involved in multi-commodity marketing and farm supplies. Large regional cooperatives are most likely to be in direct competition with the global food TNCs, both by virtue of their size and the product markets in which they compete. They tend to be active in the basic grain, oilseed, and livestock sectors that have become extensively globalized. The extent of the cooperatives' international activities suggested that they had been relatively successful in global competition, yet the heterogeneity of their membership indicated the potential for conflict between groups of members and managers. They were selected for study, given that their behaviors best represented extensively both the challenges and the potential rewards offered by globalization.

Data analysis was supplemented by interviews with current and former management personnel. Those chosen for interviews were regarded the most knowledgeable concerning their respective cooperative's international activities. They provided information on specific activities considered by the cooperatives, and were able to shed light on various unique problems and/or successes the cooperative experienced. Such a research approach is based on "key informant" interview techniques proven effective in past research on cooperatives (Gray, Butler and Lasley).

International Involvement

Land 0' Lakes

Land 0' Lakes (LOL), of Minneapolis, the regional supply and marketing cooperative, has four core businesses — feed, seed, agronomy, and dairy foods. It has a long record of successful involvement in international markets. Its involvement has recently been expanded to include ownership of foreign assets. The primary activity has had a dual focus — international marketing and international development.

International marketing seeks to expand overseas markets for dairy foods and feed through direct sales, licensing of cooperative products for foreign manufacture, and establishing foreign-based processing plants through ownership or joint venture. International development promotes rural development in underdeveloped nations, and also develops long-term markets in these countries by establishing ties for the cooperative with local producers, distributors, and processors.

LOL is currently purchasing a feed manufacturing plant in Poland which will operate under the auspices of the international marketing division. This purchase was fostered from contacts initially through the international development division's work with Polish dairy processors. This allowed LOL to become familiar with the structure of the dairy feed market and led to establishing a small feed plant to manufacture calf starter in 1991. This larger feed mill represents a substantial expansion of the company's product line. The plant, originally built and operated by a group of state farms in the region, will operate as a wholly owned subsidiary, distributing dairy and swine feed to independent producers throughout Poland.

Poland is unique among the former Soviet satellites. Most of its agricultural land has remained in private hands and agricultural production comes from small, diversified farmers. This relatively stable situation has attracted investment from western agribusinesses that expect current trends toward agricultural consolidation and specialization to lead Polish farmers to purchase a larger portion of their feed and other production supplies. LOL and other western feed companies view Poland and much of Eastern Europe as a potential growth market for manufactured feed compared with the mature U.S. market.

The atomistic structure of Polish agriculture presents feed companies with a problem of how to distribute their feed to farmers. Most western feed companies attempt to surmount this distribution bottleneck by using local commission agents who are in contact with a large number of producers or by selling their feed through the privately owned local "farm stores" where farmers buy many of their supplies. LOL's cooperative structure gives it access to an additional distribution strategy by working through existing Polish dairy cooperatives to market feed to their farmer-members.

Although being organized as a cooperative proved beneficial in establishing this initial contact with Polish dairy cooperatives, LOL does not promote its status as a cooperative as a strategy to attract feed customers. Polish farmers associate the term "cooperative" with the quasi-governmental organizations they were forced to join during communist occupation and are generally not eager to form producer associations. Therefore, in the short term, the cooperative is content to run its Polish feed mill as a limited corporation. However, LOL is grappling internally with the issue of whether or not the customers of the Polish feed mill should become members of the cooperative and this question may culminate within the next 5 years. The integration of Polish producers as full members of the cooperative raises many complex issues, but, if carried out successfully, would represent a large step toward true international farmer cooperation.

Drawing on the framework of agency theory, it is possible to conceptualize upper-level cooperative management personnel as agents of the members. Expansion of cooperative milling operations in Poland or elsewhere in the world[1] serves to meet management's goal of continued cooperative growth. LOL officials note that member and director support for the Polish feed mill has been strong to date because investment levels are small and the operation shows signs of producing large net earnings.

However, despite financial success, this investment does little to enhance member service or directly expand markets for members' products. It is possible to conceive of a situation where overseas investments such as this would meet resistance from members desiring capital to be spent to expand domestic dairy processing operations or other such activities. This may represent a situation where the strategic vision of management is necessary to "protect" the cooperative as a going concern from its members. The return projected from foreign milling operations may be significantly higher than that available from other investments which would more directly enhance member service. Therefore, it may be necessary to allocate capital to this foreign enterprise to assure survival of the cooperative. Members and managers must work together to arrive at satisfactory tradeoffs between the twin imperatives of member service and profitability.

The second thrust of LOL international involvement is in the development area. This division largely uses funds available from the U.S. Agency for International Development (USAID) to provide management and technical assistance as well as production, marketing, and processing training to persons and organizations in developing nations. As well as aiding in rural development, the program establishes important contacts for the cooperative within these countries and serves the goal of long-term market development.

Since 1981, the program has provided a wide array of services to people in Latin America, the former Soviet Union, Central and Eastern Europe, Africa, and Asia. Recent projects have focused on providing technical assistance and training geared toward privatization and establishing a market system of agriculture in Central and Eastern Europe and the former Soviet Union, which are seen as rapid-growth markets for LOL core businesses.

For example, division personnel have been involved in transforming the Bulgarian and Romanian dairy sectors into market-oriented systems by helping organize producer associations and providing technical expertise to processors. The division is placing volunteer agricultural specialists in Russia and Ukraine to assist private and privatizing agricultural businesses in the areas of processing, storage, distribution, and marketing. Technical assistance has also been provided to aid in the establishment of market-based agriculture in Poland and the establishment of an agribusiness center in the Tula region of Russia which will provide technical expertise to developing agribusinesses.

LOL's investment and marketing strategies indicate a clear recognition of the importance of global markets for the cooperative's survival. The cooperative's overall strategy seems to be to use its international development activities both for long-term market development and to identify potentially profitable areas for investment. When a geographical area appears to offer a growth market in one of LOL's core businesses, the cooperative may move quickly to establish a presence in that market.

The criteria of growth and profitability of the international activity are weighted quite heavily in the investment decision, independent of whether it directly expands markets for producers' products or reduces the costs of their inputs. This indicates that agents (cooperative managers) enjoy relative autonomy in pursuing international strategies and that there is relatively little difference between LOL's approach to international investment and that of an IOF, particularly in the feed sector.

Harvest States Cooperatives

Harvest States, of St. Paul, MN, is a regional grain marketing and farm supply cooperative active in exporting a wide range of agricultural commodities. Export sales are made both directly to end-users and through U.S. or foreign-based sales agents. The cooperative also participates with a transnational grain corporation in a joint venture established to export feed grains and shares a Mexico sales office with another large U.S.-based grain processing firm.

With the organization's long history of marketing grain sales throughout the world, Harvest States recognizes the importance of the international marketplace and views it as a major potential growth area for U.S. agribusiness firms. However, Harvest States also sees some major expansion opportunities for its value-added operations in grain and food processing in the domestic market. In reconciling how best to allocate its

[1] In 1993, LOL purchased a Hawaii-based feed milling operation in order to gain access to its distribution network and, potentially, as a stepping-off point for further expansion into Pacific feed markets.

available capital, Harvest States management is committed to assessing risk versus reward and establishing priorities accordingly.

Harvest States' management sees two trends combining to make it increasingly important for U.S. agricultural exporters to secure working relationships with end-users in importing nations. First, budget constraints dictate a reduced role for the U.S. Government in promoting U.S. agricultural commodities abroad. This means that more export transactions will take place under private negotiation instead of under Government programs. Second, many countries are taking steps to privatize their agriculture and food-processing sectors, thereby moving the task of importing raw materials from governmental agencies to end-users and private buying groups.

Harvest States has taken steps to position itself for this transition by establishing ties with end-users in importing nations whenever possible. The regional cooperative is also a member of a consortium of U.S., Dutch, Swedish, French, and German cooperatives that together own nearly 48 percent interest in an international grain trading firm. The balance of this international firm is owned and controlled by a large, U.S.-based grain processing firm. Contacts initially fostered through this group have evolved into commodity trading relationships with the Dutch, Swedish, and French members of this international consortium.

Recently, Harvest States was offered the opportunity to establish a joint venture in grain processing with a private company in another country. The cooperative is an attractive joint-venture partner for such private processors because it is seen as a reliable source of high-quality raw material (grain), with direct linkages to U.S. producers. Forming alliances with producer-owned entities is seen by such processors as a way to reduce their reliance on transnational grain merchants and gain more control over supply.

One potential sticking point to Harvest States involvement was that the joint-venture processing entity would have to be committed to using the appropriate quality of grain from the cheapest source. That meant the plant would not necessarily always use U.S. grain, a factor that could have rankled some Harvest States' members. That possibility never materialized, however, because another company submitted a higher bid for the processing facility that the joint venture had considered buying and operating.

Had the joint venture moved ahead, the ultimate investment decision would have required approval of the cooperative's board of directors, all of whom are farmers and, as a result, sympathetic to the concerns of their producer-constituents. Management believes a final decision would have been subject to much discussion. The outcome would depend on how all the factors involved finally came together. The transaction didn't reach that point, and management could not speculate on what the board's decision would have been.

The management of this cooperative tends to be growth-oriented and willing to pursue lucrative new business opportunities, even if somewhat outside the cooperative's traditional core-commodity areas. Management sees international investment as having the potential for a rate of return that will help ensure survival of the cooperative as a going concern, an elusive factor in mature U.S. markets. In the view of management, if Harvest States does not allocate its capital according to the dictates of the market, it is doomed to stagnation and eventual failure.

Management recognizes there is often little short-term incentive for members to support international investment by the cooperative. These types of ventures tend to be long-term investments, with projected payoffs anticipated to be several years ahead. Meanwhile, in any business such as Harvest States, where there are limits on available capital, foreign investment takes resources away from other projects perceived by farmer members to offer more immediate and tangible benefits, such as domestic processing facilities. Finally, the often higher-risk nature of foreign investment, along with the perceived loss of control due to the physical distance of the asset, can dampen enthusiasm for international ventures.

Management views such limitations as challenges to be addressed through member education and communication whenever promising international opportunities develop. They feel that over the long term, farmers will recognize that carefully selected international investments can be in the best interest of the cooperative, even if such ventures don't appear to provide direct, immediate benefits to members.[2] While this suggests a scenario of the agents educating the principals as to what is best for the principals, management noted that the process can and should be a positive, constructive one. The same process is fol-

[2] The example given by one manager is how the decision was made to accept shipments of Canadian wheat at the cooperative's elevators. Management finally convinced the board of directors that, despite significant member opposition, this action was necessary for the cooperative to remain competitive with surrounding, private elevators that were buying the grain at a substantial discount to the price of U.S. wheat.

lowed whenever the organization considers anything new or different.

Meanwhile, the board of directors plays an important role in articulating alternative goals held by the principals to management. The board also must approve any major investment decision entailed by international expansion. This requires reconciling market information, member demands, and cooperative principles in an attempt to make strategic decisions that will simultaneously enhance financial performance and fulfill the cooperative mission of providing services to its members.

Harvest States gives high priority to international involvement, especially to the extent that it complements a policy of increasing value-added processing operations. Recent strategies used by the cooperative indicate a willingness to seek out joint ventures or other alliances with either cooperatives or IOFs where such arrangements appear synergistic. Discussions with management also indicate that Harvest States' board continues to play an important role in seeing that new activities started by the cooperative retain an orientation to member service. In this way, Harvest States is somewhat more restricted in its choice of international investments than an IOF in a similar market situation.

Farmland Industries, Inc.

Farmland Industries of Kansas City, MO, is a federated regional cooperative active in producing, processing, and distributing agricultural inputs and products. In the early 1980s, some members of Farmland's management team felt that the cooperative could increase its international involvement through better intra-company coordination. A subsidiary was formed to synthesize and coordinate trade activities by Farmland's various divisions.

The subsidiary attempted to arrange barter trade with other countries involving Farmland's grain, petroleum, and fertilizer divisions. However, according to a former Farmland executive, top management at the time tended to be domestically oriented and was never fully behind this venture. It is also likely that the tendency for individual division heads (as agents) to pursue their own agendas *vis-à-vis* international trade contributed to the failure of this attempt to institute a unified international strategy.

In the intervening years, Farmland has had a significant management turnover and today, as stated in a recent annual report, the cooperative's "commitment to becoming a global company is strong." One upper-level manager said the cooperative's objective regarding international involvement is "to move all members' commodities and products into all world markets wherever they can effectively compete in quality, price, and customer service." The company's commitment to increase international marketing is evidenced by the 85 countries to which they shipped products in fiscal 1994, versus only 44 in 1993. Farmland currently exports grain and oilseeds, pet food, feedstuffs, fresh and processed beef and pork, lubricants, and fertilizer. The cooperative also imports crude oil and fertilizer inputs for further processing in the U.S.

In 1993, Farmland aggressively moved to increase its presence in the international grain market by purchasing a Swiss-based grain trading firm. The grain trading group, with offices in Geneva; London; Paris; Bremen, Germany; Buenos Aires, Argentina; and Memphis, TN, is a transnational entity with a worldwide network of buyer and seller contacts and no particular loyalty to any one country. It will allow the cooperative to compete head to head with transnational grain merchants in the "optional-origin" sourcing of grain. The grain trading group operates as a wholly owned subsidiary with the marketing of U.S. grain as an "absolute priority," but other origins are also used. Farmland says this purchase represents the culmination of a 50-year struggle by U.S. agricultural cooperatives to establish a viable presence in the international grain market.

The international firm not only facilitates the sale of more U.S. grain, but also provides Farmland with a global network of contacts and a wealth of market intelligence, including information on world grain supply and demand, weather, political unrest, and other trade-related matters. The worldwide trend toward privatization makes this network of contacts and market information even more essential. As countries transfer food importing from governmental entities to private end-users, direct contact with those end-users becomes paramount. Having direct contact recently paid off for Farmland when it signed a long-term wheat supply agreement with private millers in another country. Particularly attractive to the foreign millers was the opportunity for identity preservation of grain offered by the cooperative's network of local, sub-terminal, and export elevators.

Despite the obvious strengths gained by Farmland through ownership of the transnational grain trading firm, this presents an interesting paradox for the cooperative. At a fundamental level, the two organizations are built around contrasting, even contradictory, purposes. The marketing cooperative was initially conceived as a vehicle to facilitate the sale of its members produce. These members were linked by a shared identity and concentrated in a given geographical area. As such, they could see themselves in competition with other producers outside their relevant area.

This relevant area was initially local, but today tends to be regional or national. Ultimately, the marketing cooperative became a means to improve its members competitive position *vis-à-vis* producers in other areas. The trading firm, on the other hand, is an entity designed to generate profits through the arbitrage of commodities between locales, regions, or nations. Profit accrues to the entrepreneur-owner or investor. The success of this entity is directly related to the fact that it has no loyalty to or identity with any one locale, region, or nation, and is thus able to trade freely among all.

Thus, it is paradoxical when such a trading entity comes under the ownership and control of a marketing cooperative owned by producers within a given region and nation. The cooperative cannot hold the transnational trading firm strictly to its own imperative to increase markets for *member products first* without jeopardizing the essence of the trading firm critical to its success.

Farmland also established its first international office in 1993, a wholly owned subsidiary operating in Mexico. Its main purpose is to expand sales of and develop new markets for products and services of U.S. members. The office will also allow the cooperative to gain familiarity with Mexican business culture and may open the door for expansion into other Latin American countries.

Based on the cooperative's past activities and the statements of management personnel, Farmland's international activities seem to be guided by a fairly restrictive imperative to expand markets for member products or reduce the cost of member supplies-in sum, to serve the needs of a majority of the principals (member-owners), as the agents (managers and directors) perceive them.

As opposed to an IOF, which might establish a feed plant in another country based strictly on a projected risk/return ratio, Farmland wouldn't do so unless that country had the potential to be a long-term importer of U.S. feedstuffs. Farmland's international involvement is part of a larger strategy of diversification and expansion into more value-added processing operations. Farmland seeks to add value to members' raw commodities in mature markets that are often mature or stagnant. International markets, especially in countries undergoing privatization, often offer greater earnings potential.

Discussion

Using agency theory to frame these three case studies reveals the often paradoxical nature of international involvement for agricultural cooperatives. Cooperatives often find themselves forced to pursue international strategies as a way to remain competitive with IOFs, given the concentrated agricultural markets in which they compete.

However, these international strategies, as developed by IOFs, are premised on the logic of shifting capital among enterprises and nations based on anticipated rate of return. Such a "light-footed" investment strategy often appears at odds with cooperatives' founding purposes, which were tied to enhancing services, providing markets, or reducing input costs for a group of members *within a specific region and nation.* Thus, international involvement may show the potential contradictions that cooperatives face as they attempt to fulfill their dual objectives of enhancing member service/increasing member participation and ensuring survival through growth and earnings.

Through our empirical analysis, we attempt to demonstrate how agents (cooperative managers and directors) may pursue their own goals via international involvement and how these goals may or may not be compatible with those of the principals (cooperative members). Interviews with management personnel show they tend to support international involvement by their cooperative as a profitable growth strategy.

Some members may also support international investment, while others resist it on the basis that it diverts capital away from other enterprises that could more directly enhance member services or earnings. The cooperative's board of directors, as an agent of the members, plays an important role in determining to what extent the voices of these dissenting members are heard in the debate over international investment.

The diverse activities and organizational structures of U.S. cooperatives preclude generalizations regarding the role of cooperatives in the global food system based on these three cases. However, our analysis suggests some advantages and disadvantages for regional, multi-commodity cooperatives versus IOFs as they attempt to compete in the global food system.

Limitations to International Involvement

1. The diverse interests of members in regional, multi-commodity cooperatives may present a structural constraint to international involvement. Investment in overseas assets or the importation of commodities for domestic processing or marketing tends to provide commodity-specific benefits, and is likely to be perceived to provide greater benefit to some producers than to others. The heterogeneity of the membership in regional cooperatives handling production supplies as well as the marketing of multiple commodities, will make such international investment controversial and contested.

Disagreement about proposals for specific international endeavors may coalesce into direct conflict between coalitions of members or between members and management concerning the cooperative's international activities, or on the relative importance of growth or stability to the long-term interests of the cooperative. Resolution of such conflicts tends to be a long process, and the window of opportunity for international investment may be relatively small.

2. A related structural issue, noted by Kennedy and Spatz, is that cooperatives often have ties to a domestic resource base that may limit their international activity compared with IOFs. These ties include both the "physical plant" owned by the cooperative in its country of origin and the assets owned by its farmer-members, the value of which the cooperative has been charged with protecting.

International activity of the cooperative which is perceived to devalue the productive assets of its farmer members (through, for example, enhancing markets for foreign grain relative to U.S. grain) is likely to be resisted by the membership, even though it may enhance survival of the cooperative as a going concern. Other authors such as Bager have noted that cooperatives are usually tied to particular social groups within particular *nations* and, by extension, to certain

Farmer-

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IOF, i.e. terms, as strictly instrumental, economic terms. This undercuts a major resource of cooperatives-the knowledge of how to organize producers for collective action. This has traditionally been cooperatives' comparative advantage over IOFs in competing for farmers business.

6. Important social, cultural, and political barriers to international involvement by cooperatives may exist, such as language differences and nationalist ideology by cooperative managers and/or members. Nationalist ideology may represent a more significant barrier for cooperatives than for IOFs because the principals in a cooperative (the members) have more voice into the decisionmaking process than principals in an IOF. Also, farmers from a given nation, as a group, have traditionally seen themselves in competition with those from other nations for a share of limited international commodity markets.

Language is an especially significant barrier to international cooperatives because members come from multiple countries. The governance structure of cooperatives demands a certain amount of member participation in the decisionmaking processes to be effective. Achieving this ideal becomes more difficult if members do not share a common language.

Cooperative Advantages

Although the globalization of agriculture and food presents formidable challenges, there are areas where cooperatives may be at an advantage compared with IOFs, if they properly position themselves.

1. Cooperatives are perceived as reliable, quality suppliers. End-users in other countries often feel that by forming alliances with cooperatives they are aligning themselves with producers and thus assuring themselves of a consistent supply of agricultural and food products. Furthermore, the organizational structure of regional cooperatives can provide for the identity-preservation of agricultural commodities from the farm-gate through processing and export or through export in their unprocessed form to foreign-based processors.

This provides an example of structure as enabling, rather than constraining, for cooperatives. Direct links to producers and the nature of their commodity-marketing infrastructure has led to cooperatives being sought out as joint venture or supply agreement partners by end-users in other countries, especially those that are highly concerned about quality, uninterrupted supply, or with identity preservation of a product from the farm level to the foreign processing plant.

2. Cooperatives are often seen as highly ethical, trustworthy business partners by agricultural entities in other countries. Because U.S. cooperatives were formed in response to economic concentration and market failure and have been historically associated with self-empowerment of economically or politically disadvantaged small producers, they are not perceived as exploitive, capitalist organizations. This may make them attractive investors for developing nations seeking to avoid exploitation at the hands of TNCs. Such a perception has contributed to LOL's success in international development. Today's U.S. agricultural cooperatives have undergone significant transformation since their founding by small, agricultural producers and must continue to prove that they are worthy of this reputation.

3. As the macro-level trend toward globalization proceeds, it is constantly creating local and regional niches in the food system that cooperatives may be uniquely qualified to fill. For example, in some consumer markets, the reaction to globalization has been manifested in increased concerns about food safety and quality. Many consumers are becoming increasingly interested in not just how much their food costs, but in knowing where it comes from, how it gets to the supermarket shelf, and what processing operations are performed on it. Such consumers are increasingly seeking out alternatives to conventional food channels.

In fact, a recent article suggests that in the future as much as 12 percent to 18 percent of food may be produced and marketed outside of mainstream channels (Smith). Cooperatives can play an important role in this alternative food distribution system by using their marketing infrastructure to reestablish direct links between food producers and consumers, thereby alleviating concerns over food safety and quality. However, doing so will necessitate moving beyond traditional commodity channels to encourage their members to experiment with new products and production methods and seeking out new alliances with consumer groups.

4. As improved communication technology facilitates the reorganization of highly centralized, corporate bureaucracies into more flexible, diffuse organizations, the federated cooperative system could be well positioned to compete in a "post-industrial" food system. Authors such as Piore and Sabel suggest that globalization involves a fundamental shift away from systems of mass production, to methods resembling craft production. These authors suggest that the production system around which modern industrial nations are built entails using semi-skilled workers and special-purpose machinery to produce standardized goods for mass markets. They contend this historically specific system has reached its limits, as reflected in recent economic slowdowns.

Piore and Sabel believe that future production of consumer goods will be characterized by "flexible specialization," a strategy of permanent innovation that involves using highly skilled workers and multi-purpose machinery to produce a variety of goods customized to meet the needs of different groups of consumers. The federated cooperative system has the potential to offer such flexibility through encouraging autonomy and innovation at the local level. Like the process of establishing producer-consumer linkages, adopting a strategy of flexible specialization would entail a decreased reliance on the mass marketing of traditional commodities through current transportation and processing infrastructures and a shift toward the marketing of more specialized consumer products.

However, many large cooperatives are still consolidating control and centralizing decisionmaking at the regional level. Such trends in the past have tended to stifle local innovation and have given regional cooperatives a reputation as largely stagnant and resistant to change. The ability of these cooperatives to use the strengths of their local associations is still in question, but our case studies provide two examples of decentralizing tendencies.

Harvest States is returning more local autonomy to some of its centrally held locations by combining their operations with a locally controlled, affiliated member cooperative in their region. This venture centralizes such functions as risk management that offer economies of centralization and specialization, but it localizes operational decisions. Farmland has recently established joint venture processing operations with some of its local affiliates to combine the grain origination strength of the local with the regional's technical expertise and ability to generate investment capital. Such innovation and decentralization may be crucial to cooperatives survival in a global market.

Conclusions and Recommendations

Our main objective in this report is to provide a broad conceptualization of the major issues faced by cooperatives during the globalization of agricultural and food markets. The three cases show that some regional cooperatives are becoming quite active in international markets, but they also highlight the difficulties they face in competing with IOFs on a global scale.

The framework of agency theory has been used to show how cooperative members, managers, and directors may hold incongruent goals for their cooperative, and may see international involvement as providing an opportunity to pursue personal goals at the expense of the general well-being of the cooperative and its membership. This theoretical framework, when applied to the case studies, suggested several possible limitations for international involvement by cooperatives.

The organizational structure of cooperatives may be constraining in that the diversity of the membership in regional cooperatives, as well as these cooperatives' ties to domestic resource bases and social groups, may limit international involvement. The high-risk and long-term nature of much international investment may also limit this activity by cooperatives. Finally, the perception of cooperatives as quasi-state entities and other social, political, and cultural barriers may limit their international involvement. However, the organizational structure of cooperatives could be enabling as well as limiting, by giving them an advantage in establishing international alliances with end users of agricultural products. Cooperatives direct links to producers make them a reliable, quality supplier for end users and have contributed to an international image of cooperatives as ethical, trustworthy business partners. Further, the organizational structure of cooperatives could enable them to take advantage of new technologies which would put them at the forefront of post-industrial trends toward the decentralization of operational control in industry. This same structure could also help them to establish direct producer-consumer linkages and fill the local and regional niches that may be an important part of the food system of the future.

Here are some specific recommendations on how cooperatives might draw on the enabling features of their organizational structure to take advantage of opportunities offered them by this new global food system.

1. Cooperatives need to seek out member commentary on questions involving international involvement. Cooperative participants must educate themselves about the dynamics of the new global food system. But this educational process should not be strictly an endeavor of managers educating members in the tenets of economic logic. While managers must play a crucial role in providing market information to members, management and boards must also allow themselves to be educated by members. They need to make a concerted effort to listen to farmers' views of the globalization process and try to understand the multiplicity of goals that farmers may hold for their cooperative.

Then members, directors, and managers need to work together to address how the cooperative can meet these goals, and what role international involvement for the cooperative may play in meeting them. A likely outcome of such a mutual education process is that international involvement could be directed toward those endeavors that provide enhanced member service as well as increased earnings and ultimately a secure organization. This evaluation is essential if cooperatives are to continue fulfilling their historical purposes.

2. Cooperatives must seek international opportunities that they are uniquely qualified to fill. The globalization of agriculture and food is a multi-dimensional phenomenon that opens up many new opportunities in food production, processing, and distribution, both domestically and internationally. Competing successfully in the international arena does not require that cooperatives go head-to-head with TNCs in a battle for a share of the traditional mass production and marketing commodity channels. Cooperatives may be poorly equipped to compete in this arena with better financed and "internationally seasoned" transnational IOFs.

Cooperatives must keep in mind the admonition by Piore and Sabel that domestic and international consumer markets of the future will reward "permanent innovation," flexibility, and attentiveness to consumer demands. Cooperatives whose strategy for international competition involves solely a redoubling of efforts to compete with IOF agribusinesses for a share of traditional commodity markets at the global level may be resigning themselves to failure. Instead, cooperatives should seek business opportunities provided by globalization in which their organizational structure offers them a comparative advantage over IOFs. At the local or regional level this may involve facilitating producer direct-marketing of food products to health- and food-safety-conscious consumers. On an international level, it might involve drawing on cooperatives' reputation as quality suppliers and ethical business organizations to establish alliances with foreign-based end-users of agricultural commodities.

3. Closely related is the need of cooperatives to help members develop alternative products and markets as well as new ways of adding value to traditional agricultural commodities. Both domestic and international markets of the future are likely to increasingly call for differentiated consumer products rather than build commodities. Many regional cooperatives, including the three discussed in this report, have become fairly active in further processing of traditional agricultural commodities in recent years.

However, like other traditional commodity markets, these processing sectors tend to be relatively concentrated in the hands of a few large IOFs. The more promising market opportunities of the future may lie in development of new, customized products to meet specialized consumer demands. These new products will increasingly be produced, processed, and marketed outside of traditional channels. Pursuing such alternative markets will require considerable courage and innovation from cooperatives.

4. Capitalizing on the opportunities mentioned in points (2) and (3) will require high levels of member involvement and innovation within cooperatives. Creating an environment that will foster such a spirit of innovation may necessitate further decentralization of control. At the regional level, this may require flattening hierarchical managerial structures and returning more operational autonomy to local affiliates, line stations, and operating units. At the local level, it may involve increased member participation in formulating strategic goals for their cooperative, increased informal working relationships between local associations, and closer, but more informal relations between the local association and the regional cooperative staff. The federated structure of many regional cooperatives offers a model which could facilitate such decentralization, but it will take a conscious effort by the upper levels of management to make it a reality. Relinquishing such control is difficult and often goes against the historical tendency toward centralization of decisionmaking within cooperatives. However, it may be essential if cooperatives are to foster the spirit of "permanent innovation" required by intensely competitive global markets.

5. Finally, cooperatives need to broaden their definition of what international involvement entails and what goals may be served by it. To this point, the international activities of U.S. agricultural cooperatives have been primarily economic in nature. Proposals for international involvement are evaluated in instrumental terms, based on potential earnings capacity. Such a narrow focus may obscure the potential social and cultural benefits offered by participation in a global marketplace.

U.S. cooperatives can use their organizational structure to facilitate international cooperation between farmers of different nations by seeking alliances with producer-owned and -controlled organizations in other countries. Aside from any direct economic benefit they may provide, such alliances could initiate an exchange of information among agricultural producers of different nations that could result in cultural enrichment for all groups and enhance the quality of rural life throughout the world.

There are many roles for cooperatives in the global food system. This is partly because the globalization of agriculture and food does not imply one monolithic global market, but many intricately intertwined local, regional, and international food production, distribution, and consumption networks. Some large regional cooperatives can and will persist for a number of years in head-to-head competition with the transnational IOFs on a global scale, much as they have done for years on a regional and national scale.

These organizations will continue to provide the "competitive yardstick" function in the global marketplace that Nourse envisioned them providing in the national economy. However, these cooperatives may be able to improve their competitive position *vis-à-vis* IOFs by seeking innovative new working relationships with their local associations and farmer members that involve developing customized products for different groups of consumers. Other cooperatives will operate entirely in these niches created by globalization, helping to shape and create alternative food systems.

If U.S. farmers are to maintain a direct presence in the international marketplace, cooperatives must explore the ways in which their organizational structure is enabling in an international context, and they must take into account social and cultural, as well as economic, benefits to international cooperation.

Bibliography

Bager, Torben. "The Role of Food Sector Cooperatives in the Current Era of Globalization." Presented to the 8th World Congress for Rural Sociology, Pennsylvania, 1992.

Bonanno, Alessandro, Lawrence Busch, William H. Friedland, Lourdes Gouveia, and Enzo Mingione. *From Columbus to ConAgra, The Globalization of Agriculture and Food.* Lawrence, Kansas: University Press of Kansas, 1994.

Condon, Andrew M. "The Methodology and Requirements of a Theory of Modern Cooperative Enterprise." In *Cooperative Theory: New Approaches*, ed. Jeffrey S. Royer, Service Report 18, 1-32. Washington DC.: USDA-ACS., 1987.

Fama, Eugene F. "Agency Problems and the Theory of the Firm." Journal of Political Economy. 88(2):288-307, 1980.

Fama, Eugene F. and Michael C. Jensen. "Agency Problems and Residual Claims." Journal of Law and Economics. 26:327-349, 1983.

Garkovich, Lorraine and Janet Bokemeier. *Farm Women and Agricultural Cooperatives in Kentucky.* ACS Research Report 65. Washington DC: USDA-ACS, 1987.

Gray, Thomas and Gillian Butler. "Toward an Axiomatic Theory of Membership Structural Design: With a Pilot Test from DHIA Cooperatives." Presented at the Southern Rural Sociology Association Meetings, Nashville, Tenn., 1994.

Heffernan, William D. "Agricultural Profits: Who Gets Them Now, and Who Will in the Future?" resented at the fourth annual conference, Sustainable Agriculture: People, Products and Profits. Ames, Iowa: Leopold Center for Sustainable Agriculture, 1994.

Heffernan, William, Douglas Constance and Robert Gronski. "Concentration of Agricultural Markets." University of Missouri: Department of Rural Sociology, 1994.

Jensen, Michael C. and William H. Meckling. "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure." Journal of Financial Economics. 3:305-360, 1976.

Kennedy, Tracey L. and Karen J. Spatz. "Over There. Cooperatives Going Global to Enhance Marketing Position." Farmer Cooperatives. 60(7):14-17, 1993.

Lasley, R. Paul. *Organizational Structure and Membership Participation in Farmer Cooperatives.* Ph.D. dissertation, University of Missouri-Columbia, 1981.

Murray, Gordon. "Management Strategies for Corporate Control in British Agricultural Co-operatives-Part 1." Agricultural Administration. 14:51-63, 1983.

Nourse, Edwin G. "The Place of the Cooperative in Our National Economy." In *American Cooperation 1942 to 1945*, 33-39. Washington DC: American Institute of Cooperation, 1945.

Piore, Michael J. and Charles F. Sabel. *The Second Industrial Divide. New* York: Basic Books, Inc., 1984.

Rowan, Roy. "A Farm Co-op in the Hands of High Rollers." Fortune. April 20:151-160, 1981.

Smith, Rod. "Microfarmer, 'clean foods' could reach 25% of consumers." Feedstuffs. 66(28), 1994.

Staatz, John M. "The Structural Characteristics of Farmer Cooperatives and Their Behavioral Consequences." In Jeffrey S. Royer, editor, *Cooperative Theory: New Approaches.* Service Report 18, 33-60. Washington DC.: USDA-ACS, 1987.

Vitaliano, Peter. "Cooperative Enterprise: An Alternative Conceptual Basis for Analyzing a Complex Institution." American lournal of Agricultural Economics. 65(5):1078-1083, 1983.

U.S. Department of Agriculture
Rural Business-Cooperative Service

1400 Independence Ave., SW, Stop 3257
Washington, D.C. 20250-3257

Rural Business-Cooperative Service (RBS) provides research, management, and educational assistance to cooperatives to strengthen the economic position of farmers and other rural residents. It works directly with cooperative leaders and Federal and State agencies to improve organization, leadership, and operation of cooperatives and to give guidance to further development.

The cooperative segment of RBS (1) helps farmers and other rural residents develop cooperatives to obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs. RBS also publishes research and educational materials and issues Rural *Cooperatives* magazine.