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# | Executive Summaries

## **Organizational Structure in Agricultural Production Alliances**

BY BRIAN P. COZZARIN AND PETER J. BARRY

The paper addresses the choice of organizational form in industrialized hog production. The organizational form of production units is evolving to capture efficiency gains from recent technological improvements. For example, the combination of new genetics, new processes and new control mechanisms is increasing the rate of industrialization. Organizational form is the governance mechanism that keeps workers and work organized. One prominent governance mechanism in the pork industry has a parent firm called an integrator that is usually responsible for the first stage of the hog production process. The integrator contracts with individuals to carry out the downstream production processes (nursery and finishing operations). In many respects the contractual obligations of both parties resembles a franchise system. Integrator-type production has increased to such an extent in North Carolina that total hog production there has eclipsed several Midwestern U.S. states. Another governance mechanism that has been put forth as an alternative to the integrator model is the alliance. An alliance between two or more firms may be equity or non-equity based with sharing rules for net revenues, and legal agreements between members for the joint ownership and/or transfer of inputs and outputs.

The objectives of the paper are to review the relevant theoretical literature on organizational form and to create conceptual models of two of the major contractual relationships (alliance and integrator) emerging in the hog sector. Actual contracts are proprietary. Consequently, empirical information is scarce; however, we feel that the application of conceptual models of contracts can aid in making performance comparisons. The goal is to give some prescription as to which alternative organizational and contractual forms will perform the best. We demonstrate that no one theory of the firm can precisely capture all facets of current hog contracting arrangements. The models developed in the paper derive optimal contracts

and show that an integrator organizational form (one party as residual claimant) may have important efficiency advantages over an alliance.

## **Developments in Brazilian Food Safety Policy**

BY ELISABETE SALAY AND JULIE A. CASWELL

What are the principal public food safety programs in Brazil and how have these programs been developing during the 1990s? In what ways are food safety policies for domestically-consumed and exported products similar or different?

Brazil is an important case study of food safety policies because it is classified as a developing country and has the eighth largest economy in the world in terms of Gross Domestic Product. Here we analyze the principal public food safety programs in Brazil under the responsibility of the Ministries of Health and of Agriculture and Supply. We also discuss government initiatives in other types of quality certification, especially the emphasis of the Ministry of Commercial Industry and Tourism on ISO 9000 certification, and the development of consumer protection and education programs. We compare food safety standards and enforcement for the domestic, import, and export markets.

Analysis of the policy and quality management initiatives of the Brazilian government shows that recent activities are more strongly oriented toward assuring access to international markets than to assuring the safety of food sold in domestic markets. Overall, there is a lack of implementation of basic elements necessary for effective control of health and hygiene standards for food sold within Brazil. In contrast, safety assurance programs are being modernized more quickly for exports.

The export orientation of the Brazilian food safety authorities has important implications for agribusiness firms operating in Brazil. In the near future, developments in Brazil's food safety policy are likely to continue to emphasize quality assurance for the export market. However, consumer awareness and consumer protection activities are increasing within the Brazilian economy, often with government support. In the long run, this may result in more regulatory emphasis on domestic food safety assurance.

## **Grain Producers' Attitude to New Forms of Supply Chain Coordination**

BY YANN DUVAL AND ARLO BIERE

The major ongoing institutional change in agriculture has been the adoption of new forms of vertical coordination to replace the traditional commodity marketing sys-

tem. Although the traditional commodity market remains dominant in the grains industry, technological development are adding pressure for increased reliance on other forms of coordination. Farmers appear to be resistant to abandoning the open market. This study investigates grain producers' attitudes, knowledge and preferences concerning the use of new forms of vertical coordination. The findings will allow the supply chain participants to improve coordination and design more efficient contractual arrangements and marketing agreements.

In this paper we provide insight on grain producers' attitudes by analyzing two populations of wheat growers: (1) members of the American White Wheat Producers Association (AWWPA) growing an identity- preserved white wheat under contract for the association and (2) Kansas wheat growers not producing for AWWPA. Two surveys instrument were designed to allow for comparison of the results between the two populations. Responses were analyzed using descriptive statistics and regression techniques.

We find that AWWPA members were significantly younger and had higher net income than nonmembers. They also managed larger farms and were more specialized in crop production. Finally, they had a proactive attitude towards new market opportunities. Most nonmembers said they did not produce because they had not been contacted. Search and information cost may keep some operators from considering new arrangements and new behaviors. Nonmembers strongly preferred not to produce under contract and were less inclined to give up the freedom associated with using the commodity market. Nonmembers also appeared to be concerned about the risk of failure of the cooperative organizing the supply chain, the productivity of the wheat varieties, and the risk of failing the quality controls. Seventeen percent of the nonmembers did not want to change current practices. Regardless of the group, producers inclined to consider white wheat production tended to be willing to produce under contract, had higher incomes, had farmed for fewer years and had prior membership in a cooperative.

This study shows that a majority of wheat growers seems to be open to the idea of producing identity-preserved grains under contract and with a guaranteed premium. However, designing a mechanism that attracts producers may be more complex than expected. Identity-preserved production is perceived as constraining by the producers. Eliminating all unnecessary constraints in the production agreement would lower growers' resistance. A strong sales force is needed to get producers to commit. Developing personal contacts with farmers may be necessary. Producers' risk need to be well appreciated and a significant risk premium may be necessary to get substantial commitment from farmers. Large and experienced agribusinesses with intangible capital may be able to lower significantly the perceived risk. Education may help reduce producers' risk perception and improve farmers' ability to see institutional change in agriculture as an opportunity rather than a constraint.

## **Organization of New Product Development in Thailand' Food Processing Industry**

BY PRISANA SUWANNAPORN AND MARK SPEECE

Increasing consumer sophistication and the growth of MNC brands in Thailand have put pressure on the Thai food industry to innovate, as new products become a key source of competitive advantage. This paper examines the new product development (NPD) process in the Thai food processing industry, comparing how Thai companies manage the process to how it works in local branches of major MNCs. In-depth interviews were conducted in ten Thai food companies, five MNCs operating in Thailand, and a major government research institute with strong involvement in food products. (For comparison, two major food companies in Taiwan were also interviewed, but they operated NPD very similarly to major MNCs.) The MNCs all market their own branded consumer food products, as do most of the Thai companies. Some of the Thai companies mainly market their branded products to food service and catering customers, and some manufacture to specification for OEM customers. R&D managers, marketing managers, and manufacturing managers were the people usually interviewed, but sometimes also CEOs or other top management.

Results show that radical innovations are rare in Thai companies, which mainly aim for minor or incremental changes in products. MNCs may also do only such simple NPD within Thailand, but they have access to new products developed worldwide by the MNC. R&D within the region can be used to localize products. NPD is organized differently depending on whether the process is led mainly by marketing, by manufacturing, or by top management. Thai companies are more likely to have top management dominated NPD, which can sometimes bring advantage if quick market response is required. However, in larger Thai companies organization of NPD often looks more like that in MNCs, particularly the stronger role of marketing in the process. Organization also depends on whether typical life cycles of products are short or long, with marketing led NPD seeming to work better for short life cycle products. Better implementation of NPD for Thai food manufacturers will need to focus on issues related to project team structure and organization, internal linkage across R&D projects, and information flow among R&D, marketing, manufacturing, and external interface with suppliers and customers.

## **Liberalization of the Taiwan Wheat Milling Industry**

BY KYLE W. STIEGERT AND HSING MING PENG

The Taiwan wheat milling industry is currently in a state of severe overcapacity, which was brought about by over 40 years of import quotas, government control

of wheat purchasing activities, and capacity-based wheat allocation policies. From 1993-1996, these policies were eliminated. Significant structural adjustments are anticipated in the years ahead. As the move to a free market progresses, elimination of excess capacity will come about through lower flour prices, firm exit, and perhaps increased flour exports. Mills that increase their market share using innovative marketing strategies will lower their cost of production and cause other, less aggressive mills, to lose market share, raise costs and eventually exit the industry. The new competitive conditions will require that mills purchase wheat that can be most efficiently milled while still providing the necessary flour quality for downstream contracts. We examined the potential for these structural changes to affect the market share of the three principal wheat exporters into Taiwan: U.S., Canada, and Australia. The cost minimizing formula for a representative mill producing bread flour was composed of 44% U.S., 31% Australian, and 25% Canadian, which is quite different from the formulas used in the pre-liberalized period. The quality sensitivity analysis indicated that the market share for Australia tended to increase as quality requirements increased. Canadian wheat tended to lose market share as quality requirements increased, and market share of wheat from the U.S. tended to be stable across a wide range of quality specifications.

## **Analyzing Agribusiness Competitiveness: The Case of the United States Sugar Industry**

BY P. LYNN KENNEDY, R. WES HARRISON, AND MARIO A. PIEDRA

The competitive position of various regions and sectors of the United States sugar industry are examined in this paper. An analytical framework to describe the impact of the sources that influence competitiveness in the sugar industry is developed, and several indicators of competitiveness are also identified. There are a number of technological and economic factors that influence a firm or industry's competitiveness. These factors can be grouped into two categories: those that affect relative cost of production and those that affect quality, or perceived quality, of the product and/or business enterprise. As the firm gains advantage in the various sources of competitiveness, relative market share and profits increase. In situations where a firm is able to decrease production costs or improve its products relative to other firms in the industry, market share will increase. The paper utilizes this framework in order to determine the competitive position of four sugarcane states and sugarbeet sector.

One significant implication of this study relates to the lowering of the U.S. sugar protection through the GATT/WTO. When sugar protection levels are reduced by the year 2000, the average U.S. domestic price will drop and profit margins within the U.S. industry will also decline. This raises questions regarding

the viability of sugar production in certain regions. Therefore, if sugar producing regions in the United States are to remain competitive in this new policy environment, they must maintain and enhance their ability to produce sugar at costs competitive with the rest of the world. This is critical for both the production and processing sectors.

The results of this research provide information that can be utilized in the development of state and/or regional strategic competitiveness plans. For example, this analysis indicates that some states could strategically position themselves by directing resources toward enhancing the cost-competitiveness of the sugar processing sector. Furthermore, this analysis offers implications for both agricultural producers and agribusiness processors regarding business structure. Producers and processors must evaluate opportunities to attain economies of size within the industry. For example, sugar producers should consider possibilities of forming new processing cooperatives and/or merging existing cooperatives in order to gain economies of size in the processing sector, thereby decreasing costs and ensuring the overall viability of the sugar production sector in their region.

By becoming party to international agricultural trade agreements, countries are now limited regarding the type and amount of agricultural protection available to support the agricultural sector. Policy-makers are concerned with developing competitiveness at the national, regional, state, or local levels, providing profits to producers and agribusiness, and providing the consumer with an affordable supply of high quality sugar with a minimal amount of government expenditure. Given the new constraints to the policy process, we suggest strategic plans be developed based on the relative levels of competitiveness identified in this paper.

## **The Development of a Mentor Program to Foster Career Management**

BY GREGORY A. BAKER

The Mentor Program described in this article pairs students pursuing the MBA in Agribusiness degree through the Institute of Agribusiness at Santa Clara University with senior managers in the food and agribusiness industries. All first year students are encouraged to participate in the Program. Mentors are selected to match the interests of the participating students, based on factors including, industry and functional area expertise, and years of business experience.

The Mentor Program was structured to include the following activities: a visit by the student to the mentor's organization, frequent contact between the student and mentor, an internship, career counseling, and advice in obtaining full-time employment. Both the author's experience and the results of a survey of participants in the program indicated that the program has been successful. The great

majority of students indicated that they had benefitted from their relationship with their mentor.

The mentor-student relationship was shown to be particularly valuable in four areas: career counseling, practical experience, employment opportunities, and networking. Because of their wealth of industry experience, mentors are uniquely qualified to provide career advice. Likewise, students were especially appreciative of the practical experience they received through the Program, most often through an internship or other activities they pursued with their mentors. Upon completion of their degree many students benefitted from advice given to them by their mentor regarding the search for full-time employment. Two students actually took jobs with their mentors' companies. In most cases, the students' participation in the Mentor Program has also provided the basis for developing their professional network.

The Mentor Program has provided many collateral benefits to other academic programs. It has enhanced the existing internship program, made students better prepared for advising, helped them get more out of the services provided by Career Services, and improved the classroom environment. It has also enhanced the reputation of the department providing the program and strengthened the department's ties with industry and alumni.

A major shortcoming of the Program, identified by both students and mentors, was the difficulty in initiating contact with their counterpart. The Program could be improved by providing more structure, including an initial orientation, encouraging participation by both mentors and students at existing departmental events, and by more frequent communication from the faculty coordinator.

## **A Framework for Incorporating Case Writing Assignments in Graduate Agribusiness Courses**

BY S. SURESHWARAN AND GWEN HANKS

Many agribusiness programs are seeking to provide students with relevant experiential learning opportunities through internships, cooperative programs, and/or the use of published case studies analyzed in the classrooms. This has resulted in increased demand for educational materials and techniques which traditionally have been used more often in Colleges of Business than in agricultural programs. This is indicated by the growing number of publications and presentations at professional meetings.

The focus of previous literature has been on using published cases for class discussions. The experiential advantage of the case analysis technique can be made even more vivid and profound for students when they are involved in the actual writing of cases. The core competencies developed during a case writing exercise



are consistent with almost all of the characteristics desired by the world of agribusiness. Furthermore, the participating agribusiness firms benefit from developing a relationship with the school, and in turn, enhance the firm's pool of qualified applicants.

The purpose of this article is to provide a demonstration of how agribusiness students can use case writing as an important and productive part of a research course. A graduate course was selected as the appropriate vehicle for this exercise because of the intensive nature of case writing. This experience is utilized to discuss the issues of class composition and course requirements; develop a framework and step-by-step procedures for including students in the writing of cases; and identify potential problems and challenges which might exist when integrating a case writing assignment into courses. In addition, a brief summary of three case studies is included to provide an overview of the depth and focus of cases written by students.

A total of six case studies were written, three each semester. The majority of the cases written by student groups have resulted in refereed publications or presentations at professional meetings. As a result of this assignment, one student completed a thesis on a closely related topic and has decided to continue toward a higher degree.

The participating faculty benefitted from the learning experience as did the students. The students agreed that this approach should be continued in this course. Students' perceived advantages of writing a case study, instead of a research paper, included: (1) allows students to place themselves in a manager's shoes in a "real world" environment; (2) provides experience of personally interviewing and seeing the food processing facility; and (3) develops initiative and the ability to think like a manager.

Continuous improvement process requires the development of new methods of instruction to meet the changing needs of students and employers. The experience described in this study indicate the benefits of case writing as perceived by all participants: students, instructors and business mentors. However, the long term benefits of providing experiential learning opportunities to students comes not only from those that were identified by the evaluators, but also from the future competition for quality students and successful job placement of graduates.

## **The Green Company: A Case of Change in Management Structure and Processes in a Small Law and Garden Business**

BY ROGER A. HINSON, R. WES HARRISON,  
DAVID L. DEEHOUSE, AND BARBARA D. MINSKY

This case documents the evolution of a small garden center/landscape company located in the Northeast United States toward alternative management structures.

The company's history, competitive situation, its implementation of an employee empowerment program, and the learning that occurred in the process of making the program work are presented. Discussion is focused on the following two areas:

1. Defining empowerment is not simple, and shifting from the traditional centralized and top-down management style to a decentralized and incentive driven style can be a challenge. The important elements of a successful empowerment program include:
  - A change in corporate culture that emphasizes employee involvement in decision-making.
  - An "organic" aspect of empowerment that involves risk taking, growth and change. Employees have a sense of ownership and behave as entrepreneurs, i.e. taking risks to identify better ways of doing business. Creative conflict would lead to refined and better processes, a stronger organization, more satisfied employees
  - A "mechanistic" approach that states the firm's mission and values; tasks and roles are specified; rewards for performance are clear; responsibility is delegated, and there is accountability.

A successful empowerment program blends these elements. Many firms have implemented programs that have not provided the expected results; successful programs evolve over time.
2. Analysis of the Green Company case provides the following implications:
  - The organic element alone is insufficient for a successful empowerment program.
  - There must be a clear statement of how the company will behave, in its vision and values.
  - Decision-making boundaries must be established.
  - Employees must choose to be empowered. Not all employees want this responsibility.
  - Procedures for monitoring and control must be developed to provide review and progress reports for management, and information to the empowered employees.
  - Significant learning may be necessary as employees move into this environment.