

**CASE STUDY ANALYSIS OF STRATEGIC ALLIANCES FOR THE U.S. BEEF
INDUSTRY**

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**By
Angel Bu Zapata
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ABSTRACT

This paper provides case studies on the structure of six strategic alliances in the beef industry. Strategic alliances are identified whose structure could conceivably be used in Louisiana. Strategic alliances are compared and contrasted on the basis of development and performance. The main objective of this study was to determine the organization and operation of six strategic alliances in the beef industry.

The study examines strategic alliances in the U.S. beef industry using multiple exploratory case studies. The exploratory type, allows the researcher to better understand critical points in the beef industry and how the use of strategic alliances can lead to better performance. The alliances are chosen within four different categories of strategic alliances in the beef industry; in this case, six alliances are chosen as commercial beef carcass type. As a research technique, the exploratory case study attempts to answer "what" questions, and provides the researcher an opportunity to develop hypotheses. Five hypotheses are formulated in the study. Based on the hypotheses, personal interviews take place with the application of a questionnaire that contains fifty-seven open-ended type questions on production, economic and general characteristics about the alliances. The information gathered will support or refute the hypotheses formulated in order to establish precise criteria on strategic alliance formation. A comparison between the six strategic alliance structures will be describe based on the hypotheses formulated and information collected throughout the application of the questionnaire.

The hypothesis test revealed that strategic alliances serve, with no doubt, to reduce transaction cost along the production chain but it is not the case for the issue of price variability. As well, strategic alliances serve to increase the flow of information and

to provide alternative market outlets but do not serve to increase producers' access to capital.

CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

The cattle industry plays an integral role in the United States (US) economy. The US beef industry generally remains a commodity industry, but is gradually moving toward an industry characterized by more branded products. Industry attitudes (e.g., attitudes of seed stock breeders, commercial producers and packers) are changing from being an industry that was inwardly focused to becoming one that is more consumer responsive. The beef industry is facing major issues, including consumer perceptions that beef is unhealthy, a declining market share that has recently begun to stabilize, segmentation, strong traditions, and a relatively slow rate of technology adoption among production segments in the industry. In total earnings, however, the cattle business is the largest sector in the agricultural industry.

The number of participants in the beef industry continues to decline. Currently, there are four packers which handle approximately 80% of the fed cattle marketed annually. Concentration is less apparent in the remainder of the industry. There are 2,100 feedlots with more than 1,000 head capacity marketing 85% of the fed cattle. There are approximately 800,000 cow-calf producers; approximately 90% of these have fewer than 100 cows. Within the beef industry, each segment is assumed to maximize profit. However, stakeholders in one industry segment sometimes openly distrust other industry participants.

Bourdon (1986) emphasizes the importance of profit maximization in beef cattle enterprises. He states, "The systems concept of beef production incorporates awareness that there is more to consider in a beef cattle enterprise than simply the level of

production. What is most important is the overall efficiency of the enterprise, in other words, net return." This particular approach, if implemented, could lead to a more efficient decision making process.

Smith (1999) described a total quality management approach to the entire beef industry when he stated, "the beef industry should assure that domestic and international consumers receive bacteriologically and chemically safe, healthful, high quality and consistently palatable beef that was produced without compromising the environment or the animal's welfare". What is interpreted from these two authors is a systematic progression in the beef industry production process. We can observe this process through the formation of strategic alliances in the U.S. beef industry.

Formation of strategic alliances generally involves some type of vertical coordination. Many stakeholders are concerned with the amount of vertical coordination in the beef industry. The term vertical coordination is defined as "the linkage of successive stages in the marketing and production of a commodity in one decision entity" (Cramer et al., 1997). On the other hand, vertical integration refers to successive production stages and/or marketing stages being owned by one firm (Cramer et al., 1997). Other definitions of vertical coordination include den Ouden et al., 1996, who define it as, "The relationship between individual firms or organizations in two or more adjacent stages of the production-marketing channel without full ownership or control by individual firms". The participants, or partners, fundamentally maintain their independence, but share information to more effectively price products and improve flow of products among the vertical production and marketing stages." Vertical coordination has been defined by King (1992) as, "the alignment of direction and control across

segments of a production and marketing system." The terms that are commonly used and controlled are price, quantity, quality, and terms of exchange (Sporleder, 1992). Within the U.S. beef industry; there are multiple stages in the production/marketing chain: breeders, commercial cow-calf producers, backgrounders feeders, packers, processors, retailers, and consumers, some of which are becoming more vertically coordinated or even vertically integrated today.

An understanding of various aspects of vertical coordination is necessary to conduct an analysis of strategic alliances found in the U.S beef industry. Sporleder (1994) defines strategic alliances as "purposive strategic relationships between independent firms that share compatible goals, strive for mutual benefits, and acknowledge a high level of mutual dependence". Spekman et al., 1997, states that, "A strategic alliance is a close, long-term, mutually beneficial agreement between two or more partners in which resources, knowledge, and capabilities are shared with the objective of enhancing the competitive position of each other".

Identification of strategic alliances in the beef industry needs to be established according to a specific categorization. It is important to understand and differentiate the several strategic alliance categories in order to determine their respective role in the production/marketing process. Yelich identified four different categories of strategic alliances in the beef cattle industry today:

- breed associated
- commercial beef carcass
- natural/implant-free and
- vertically-integrated beef cooperatives.

Breed associated Alliances are endorsed by specific breed associations and are dominated by the British breeds. They designate certain breed specifications, handle source-verified products and provide carcass feedback information to producers. They typically market high-quality beef products. The most successful breed association alliance has arguably been Certified Angus Beef. Other breed associations have started alliance programs, including the Gelbvieh, Shorthorn, Limousin and Saler associations (Yelich, 1997).

The most common type of alliance is the commercial beef carcass alliance. These alliances emphasize relationships between industry segments. Their function is to provide performance feedback from the feedyard and carcass information from the processing plant to the cow-calf producer, and provide prices that reflect the true value of cattle. Breed specifications differ among commercial beef carcass alliances. The most common breed accepted is Angus. Most alliances exclude dairy and Bos indicus-type cattle (Yelich, 1997).

The natural/implant-free alliances feature the production/marketing of antibiotic and growth promotant-free products. Two of the most well known are Coleman Natural Products and Maverick Ranch. Breed specifications for the natural/implant-free alliances are likely to include cattle with no Bos indicus breeding. Most convey feedyard and carcass data back to the producer (Yelich, 1997).

The vertically integrated alliances are generally regionally based alliances. As a rule, these alliances involve producer-owned cooperatives. Their primary goal is full control of the product they produce, while returning profits back to the members (Yelich,

1997).

The reasons why producers should consider forming strategic alliances are the potential benefits to be gained. Benefits of a strategic alliance may include access to capital, processing capacity, processing expertise, or new markets. “Strategic alliances reduce the segmentation within the production-marketing channel by more closely linking the stages, working for mutual benefits. Alliances are generally designed to create a sharing of information among the participants of the marketing channel” (Ball, 1997).

Creation of strategic alliances could produce more consistent and uniform quality beef products. Some existing alliances require specific management (production) practices, such as vaccination programs, health programs, feeding programs, particular feedlots and packers, quality assurance programs, growth implant programs, and antibiotic-use restrictions (Ward and Estrada, 2000). Many also try to provide a more consistent quality of product to consumers.

Strategic alliances and organizations of vertical coordination have been a source of debate in the beef industry. Some people argue that vertical coordination is the beef industry’s best approach to solving declines in demand for beef, unclear prices, and lack of profitability. Strategic alliances are perceived as a solution for gaining larger returns and higher prices. Others in the beef industry believe alliances contribute to problems, especially the issue of captive supplies.

Problem Statement

Strategic alliances have recently been introduced into the U.S. beef industry. There continues to be a high level of competitiveness in the meat industry. The hog and

broiler industries are more highly vertically coordinated, which, along with other factors, has led to greater efficiency.

Per capita demand for beef has decreased considerably in the Western countries for two decades. The pork industry improved efficiency using advanced genetics and intensive management programs, providing products to customers at lower prices (Seperich et al., 1996). Increasing efficiency is an important step in reducing production costs and, ultimately, reducing the prices consumers pay for beef.

From 1980 to 1998, beef's percentage of consumer meat spending decreased from 53.9% to 40.2%. Most of this loss in market share can be attributed to an increased market share for chicken. Current market share has been lost due to perceived health benefits from alternative meat sources, inconsistent product (palatability and portion size), little consumer information about product use, poor brand identification and little innovation in delivering convenient and new products.

A complication the beef industry faces is that no segment can, by itself, guarantee the consumer a quality and consistent product. Such a guarantee requires communication and exchange of information among all industry segments, including the retailer, packer, feeder and cow-calf producer. Barriers to communication must be eliminated in order for all segments of the industry to provide the consumer a lower-priced, safe, consistent, and quality product.

The beef industry marketing channel, beginning with seed stock producers and ending with the final phase, consumers, is very complex and segmented and is characterized by a lack of communication throughout the phases. Producers often lack

sufficient resources to form successful value-added processing facilities by themselves. A second problem is lack of experience, such as in processing or marketing, which is necessary for producers to engage in value added activities. Precise implementation of strategic alliances can help alleviate these problems.

Every successful business must strive to meet the needs of the customer.

Producing a product for a market rather than producing a product and then trying to find a market for it are two different scenarios. Beef producers likely have participated in the latter rather than the former.

Justification

The 1995 National Beef Quality Audit conducted by the National Cattlemen's Beef Association indicated that the number one problem facing the beef industry was lack of uniformity and consistency in its product, the latter needed for successful branding. Consumers are concerned not only with taste, but also with price, packaging, safety and image of the retail product.

The genetic composition of cattle does not allow as high of biological efficiency as with poultry and pork, which can be reproduced in shorter reproduction periods. The poultry and pork industries have made considerably more technological progress, which continues to increase sizes of operations. In the case of cattle production, technological changes have been less capital intensive (Gillespie and Schupp, 2000).

One way for the beef industry to become more competitive is, perhaps, for strategic alliances to evolve within the industry. The packer level in the beef industry is, perhaps, a logical place to begin, because it is more accessible to consumers. For packers

to provide products that meet consumer demand, they must obtain consistent quality live inputs. To ensure the procurement of the type of fed animal needed, the packer must improve communication with the feedlot and it must pay prices based on those specifications. With premium prices being paid for quality fed animals, feedlots could pay premium prices for top quality calves (Gillespie and Schupp, 2000).

For the beef industry to regain market share, cattle producers must target the market more effectively and transform breeding and feeding practices, assuring specifications demanded by customers. Product consistency over time and space along the production-marketing channel in the beef industry is a grave need in the present situation of the beef industry; there must be better communication from packer to producer to result in products that consistently meet demand. Alliances are one way to achieve this goal.

Objectives

The overall objective of this study is to determine the structure of six strategic alliances in the beef industry and to give recommendations based on results of the study.

The following are specific objectives:

1. To identify beef strategic alliances whose structures could conceivably be used in Louisiana.
2. To identify differences in the alliance organizations.
3. To establish comparison and contrasting among strategic alliances.
4. To make recommendations in Alliance use to increase the competitiveness and market share of the beef industry.

The study seeks beef strategic alliances whose structure could conceivably be used in Louisiana. In this way, the study can have an impact on the development of the beef industry in Louisiana and recommendations can be made according to similar structures. Strategic alliance organizations were chosen according to the number of cattle managed, with the objective of obtaining information from small, medium and large alliances. Different production levels provide information to establish detailed comparisons of the types of strategic alliance organizations.

This study identified six strategic alliances for survey across the Southern U.S. Strategic alliances were contacted based on the Alliance Yellow Pages, editions 2001, 2002 and 2003, respectively. The Alliance Yellow Pages is a publication of consumer-based and calf-based programs, and can be found in Drovers magazine or at the magazine website. Alliances were chosen based on genetics (specific breeds) and, primarily, on geographic location. Personal interviews are a principal component of this study, due to the importance of detailed firm level data.

Literature on Strategic Alliances

Literature available on the subject of strategic alliances in the beef industry is very limited. While some articles deal with strategic alliances, not all are directly related to the beef industry.

Park discusses the Canadian boom period of the 1980s with new plant expansions, mergers, and acquisitions that gave way to bankruptcies, plant closings, and layoffs during the 1990s. The Joint Venture program of Durham Region, Canada, was developed to retain jobs, create new job opportunities, assist existing manufacturers to diversify through new product line acquisitions, and, in many cases, assist high technology firms to

increase revenue through technology transfer. Park mentions the role of the Federal and provincial governments in encouraging the formation of strategic alliances.

Rekeweg and Hudson (1993) gathered expert opinions regarding the involvement of strategic alliances within the livestock and meat sector. They used a survey to provide information about “how information technology may be used to coordinate activities in strategic alliances”, “why strategic alliances should be formed”, and “who would lead in initiating them”. Respondents expected strategic alliances to increase in numbers over the next ten years. The authors state the potential use of information from technology-based alliances “will provide insight into the current and future potential of strategic alliances within the food and agribusiness sector”.

Sporleder (1994) investigated the purpose of strategic alliances to achieve coordination between vertically coordinated agribusiness firms. He first describes the concepts of strategic alliances, and then their evolution. Then, “the fundamental characteristics of strategic alliances are re-examined and compared to alternative forms of intraindustry interfirm cooperative arrangements, always in the vertical context”. Finally, analysis is concluded toward strategic alliances between agribusiness partners with vertical coordination.

A 1994 study by Van-Duren, Howard, and McKay enhanced the issue of strategic alliance formation. The article demonstrates how strategic alliances can be created, based on case studies of different firms in Canada’s agri-food sector. Strategic alliance characteristics were analyzed based on: goals, desire and process. They concluded that the most challenging task in developing a successful strategic alliance is the establishment of the goals, desire and process.

Van-Duren, Howard, and McKay (1995) used the same companies as in Van-Duren, Howard, and McKay (1994). They present case studies of different models of vertical integration and discuss some reasons why firms benefit from strategic alliances. The Canadian Agri-Food Competitiveness Council conducted this study, with a similar format for each case; business literature and financial reports provided information about the companies. “Chief Executive Officers and/or Vice Presidents of each firm were interviewed about their strategic alliances, dimensions of the alliances, ex ante and current expectations of the alliance, and critical success factors in the alliances. Each interview was taped and drafts were sent to each company for accuracy”. Based on the case studies, the authors concluded that trust, dedication to the alliance, and independence are key ingredients to a successful strategic alliance.

Boehlje and Schrader (1996) discuss industrialization of agriculture and the steps used to achieve it. Vertical coordination throughout the production chain is one of many points considered. The authors analyze how partnering and alliances reduce investment and leverage needs. They describe the process for producers to join or partner with resource suppliers to expand volume with limited capital. “The authors address the example of livestock production through contracts. A hog integrator may own the breeding, gestation, and farrowing facilities, but contract out the nursery and growing phases”. In the article, it is stated that information will be a key factor for coordination and allocation of power in the production and distribution system. They concluded that negotiated coordination through contract production, vertical coordination, and strategic alliances would take over the misleading market coordination that has dominated commodity markets in the past. This article provides an excellent description of the

development of vertical coordination.

Tubbs (1997) discusses the mechanism behind strategic alliances and networking in the pork production industry. “The author listed a few generic driving forces, but identified the specific driving forces in the pork industry and discussed each briefly. He identifies driving forces for strategic alliances as: profit, economies of scale, recapitalization, and globalization of the industry”. He concludes that networking helped the firms to work as groups, to use others’ strengths when necessary, and to contribute their own strengths when needed.

Cozzarin and Barry developed a conceptual model for a three-firm swine production alliance. The authors discuss performance characteristics of different organizational structures in the hog industry. Conceptual models offer an alternative method for researching these organizations. Cozzarin and Barry found that the organizational form might be preferable to an alliance. “The reason is that the integrator pays the managers less than alliance partners would likely demand, and therefore achieves a higher net return”.

Melodia and Schescke (2000) discuss world agricultural changes. They describe the pace of change in technologies and markets and discuss how agricultural firms have become more competitive and more specialized in recent years. Strategic partnerships and alliances that many corporations and industries are voluntarily creating in response to industry demands are discussed. Two of the most important mechanisms driving strategic alliances are technology development and globalization, both providing incentives for firms to collaborate with one another. The goals of these networking are to share knowledge and capabilities to meet consumer demands and provide a path for innovation.

Porter (2000) discusses the issue of vertical integration with the case of U.S. Premium Beef. The case focuses on an alliance between U.S. Premium Beef (USPB), a producer cooperative, and Farmland Industries, the largest U.S. farm cooperative. These two cooperatives jointly own Farmland National Beef (FNB), a packing company that moves live cattle through all processing cycles to the international wholesale marketplace for branded beef products. By forming alliances, cattle producers are able to transfer financial risks. "The FNB partnership has eliminated or mitigated many of the risks inherent in the beef industry by turning a low-priced cattle producer (less \$/unit) into a product differentiator". In effect, FNB produces a more steady demand for beef by marketing higher quality and consistent products.

A related article in the Food Traceability Report Weekly (2001) discussed the implications of three leading companies in the animal identification and tracking business that have announced a strategic technology alliance designed to create a global traceability standard for the beef industry. In a joint statement, the three firms said their strategy would "provide a framework for establishing global standards for individual animal identification, creating an industry procurement system to enable retailers and others to secure supply based on specific characteristics, enabling unprecedented branding opportunities".

Outline

This thesis proceeds as follows. Analytical framework and methodology appropriate for the use of case study research are described in Chapter Two. Chapter Three includes the data gathered through the interviews, which will be used to establish a criterion to test the hypotheses developed. Chapter Four consists of the hypothesis tests,

and contrasts and compares the selected strategic alliances. Finally, Chapter Five consists of the summary, conclusions and recommendations for further studies on the research topic.

CHAPTER 2

ANALYTICAL FRAMEWORK AND METHODOLOGY

Case Study Research

The discipline of agricultural economics is in evolution, and researchers must often study problems that involve small numbers of firms, thus, disallowing the use of statistical inference. Such studies frequently focus on such areas as agricultural policies, international trade, or environmental issues. When examining issues such as these, it is advantageous for researchers to utilize direct observations and personal interviews. Information obtained through the implementation of these research techniques is highly valuable (Westgren and Zering, 1998). For this case study analysis, the personal interview is the main source of data collection.

Case study research approaches problems and opportunities faced by firms, such as with strategic alliances in the U.S. beef industry. The implementation of case study research has been described as "especially useful in investigations of current issues like the structural changes in agricultural-food markets where structural and behavioral norms are in flux" (Westgren and Zering, 1998).

Case Study Protocol

A specific protocol has been developed for conducting case studies. Use of the protocol increases the reliability of the study and provides a guide for the researcher (Yin, 1994). Yin states that, "The protocol contains the instrument, but also contains the procedures and general rules that should be followed in using the instrument". The protocol can provide a specific description of the steps for the researcher to follow, but it has to be carefully designed. It can determine the types and sources of data that need to

be gathered. The initial stages in the preparation of a case study and in the creation of a protocol should involve the creation of a detailed description of the situation being analyzed.

One of the most important aspects of case study design involves identifying the unit of analysis. The unit of analysis specifies the entity to be studied (Yin, 1994). In the agricultural sector, it could be a firm, or a group of firms within an industry.

For this particular case study analysis, the protocol is formulated according to the different stages of the research procedure. First, the current situation is described, addressing the situation being analyzed. Second, the selection process of the strategic alliances to be studied is described. Third, the null and alternative hypotheses are formulated and stated. Consequently, a description of the formulation of the research questions is provided, followed by the data collection procedure and, finally, the data analysis.

Case Study Designs

Two basic case study designs may be considered: single case and multiple-case. Case studies are classified as single or multiple based on the number of participants that are considered in the study. For the present study of U.S. beef industry strategic alliances, a multiple case study design is used.

When determining which case study design is the best for the project, it is necessary to identify the type of case study that best addresses the types of questions being asked (Yin, 1994). Case studies can be categorized into three types: explanatory, descriptive, and exploratory. An explanatory case study concentrates on determining how and why a certain phenomenon occurs. Descriptive case studies attempt to describe a

particular phenomenon. Finally, exploratory case studies attempt to answer "what" questions. This method involves development of hypotheses based on pre-existing research related to a particular event. Each of these case study types can be used simultaneously to improve the reliability of the research conclusions. To determine which of these case study types most adequately addresses the research question established, it is important to consider two conditions. First, are the questions related to what, why or how a phenomenon occurs? Second, can the researcher influence this occurrence? (Yin, 1994). The descriptive and exploratory types serve the purpose of the present study.

Formulation of Research Questions

Case study research questions are among the most important components of the case study project. If the questions are not well prepared, key aspects of the study will not be achieved. Case study research questions should be open-ended in nature, and should lead the respondent to provide the type of information the researcher needs. Questions for the case study analysis of strategic alliances for the U.S. beef industry were divided into: general characteristics, production characteristics, economic characteristics, performance characteristics and marketing characteristics.

Other Issues

When the researcher has determined which case study design is the most appropriate for the study, a problem statement regarding the research study must be formulated. The problem statement needs to provide an overall description of the particular subject being analyzed. Conclusions need to be detailed in this final section of the report. Conclusions should follow a generalized form, in order to be applied to other firms within the industry or similar industries. Finally, the report needs to describe how

the case study database would help readers to better understand the conclusions of the study.

Evaluation of data in case study research can be difficult. Maintenance of the information collected by researchers throughout the course of the study needs to be very detailed. Any misspecification of or carelessness with information might lead to biased reports. To avoid this, it is strongly recommended that the researcher compile the database individually.

Evaluating the case study and its conclusions leads to the researcher's credibility to base conclusions upon information obtained from several sources, kept carefully with precise records, and to maintain a course of evidence (Yin, 1994). This process helps convince other researchers and users that the case study results are free from bias and are accurate. Following this procedure along with the development of a case study database will ensure that the study was conducted with a high level of credibility and that results are reliable (Yin, 1994).

Methodology: Case Study Protocol

Description of the Case Study: Current Situation

Beef production and marketing alliances increased to more than forty programs in the years prior to 2001 (Peck, 2001). According to Cattle-Fax, more than 15% of the cattle in the U.S. are marketed as part of an integrated program and more than 50% of the fed cattle are managed as part of a grid or formula. The traditional system in which cattle are traded is changing toward a value-based marketing process, where cattle value is based on different quality specifications. Not all value-based programs are managed the same way, and not all of them will succeed, as explained by Hughes (2001). The situation

being analyzed is the formation of strategic alliances in the U.S. beef industry towards the improvement of market share for beef, the communication system through the production stage, the production of consistent quality products, and the improvement of marketing channels.

Most successful beef strategic alliances focus on value-based marketing. According to Blach (2001), “First, the beef industry needs better tools and technology to measure quality points like red meat yield and tenderness”. People in the U.S. beef industry need to understand the concept of risk management and, at the same time, be able to integrate the concept into the alliance.

Blach lists different tools for alliance formation that are likely to lead to success:

- Vision – The alliance must have short and long-term, well-defined objectives.
- Flexibility – The alliance must have a structure that can adjust to the cattle cycle and changes in beef demand.
- Leadership – The alliance must have strong leaders with trained staff.
- Capital – The mechanism for financial stability must be incorporated into the structure.
- Communication – Close work and shared information among alliance members is desirable.

The unit of analysis in this study is each strategic alliance being interviewed. The use of an exploratory case study will answer “what” questions, and provide the researcher an opportunity to develop hypotheses.

Selection of Strategic Alliances

The strategic alliances interviewed in this study are consumer-based and/or calf-based programs. Each of these strategic alliances was chosen based on geographic location in the Southeastern or Mid-south United States and, also important, according to the use of specific breeds or crosses including *Bos Taurus* genetics.

As mentioned by Yelich (1997), the most common type of alliance is the commercial beef alliance. The alliances selected are all considered commercial types. Within the consumer-based programs, the following were identified and interviewed:

- Gene Net Alliance
1104B W 36th
Hays, KS 67601
- Caprock Cattle Feeders
905 South Fillmore, Suite # 700
Amarillo, TX 79101
- B3R Country Meats
P.O. Box 374
Childress, TX 79201

Within the calf-based programs, the following strategic alliances were interviewed:

- Vernon Beef Alliance
287 Hickman Road
Leesville, LA 71446
- Piedmont Cattle Producers Association
26216 US Highway 431
Five Points, AL 36855
- Beef Advantage
180 Old Nashville Highway
LaVergne, TN 37086

Hypothesis Formulation

As part of this study, hypotheses were formulated to be tested on the chosen firms. Each hypothesis was formulated according to desired information directly linked to several research questions.

The hypotheses are formulated as:

1. Ho: Strategic alliances do not serve to reduce any transaction costs.
Ha: Strategic alliances serve to reduce some transaction costs.
2. Ho: Strategic alliances do not serve to reduce price variability.
Ha: Strategic alliances serve to reduce price variability.
3. Ho: Strategic alliances do not serve to increase farmers' access to capital.
Ha: Strategic alliances serve to increase farmers' access to capital.
4. Ho: Strategic alliances do not serve to increase the flow of information along the supply chain.
Ha: Strategic alliances serve to increase the flow of information along the supply chain.
5. Ho: Strategic alliances do not serve to provide alternative market outlets for animals of specific traits.
Ha: Strategic alliances serve to provide alternative market outlets for animals of specific traits.

The first hypothesis was formulated based on a literature review of the issue of transaction costs. The impact of transaction costs in a cattle operation has a potentially large effect on its performance. Transaction costs are incurred in any economic exchange, where the allocation to a particular market outlet can determine the specific transaction

cost incurred by a cattle operation. Fahlbeck (1996) defined transaction costs as those costs required to maintain and establish property rights. Williamson (1990) states that, “transaction costs are central to the study of economics. They identify the critical dimensions for characterizing transactions, describe the main governance structures of transactions, and indicate how and why transactions can be matched with institutions in a discriminating way”.

Hobbs (1996) stated, “transaction costs are more than simply the monetary costs associated with the purchase and delivery of slaughter cattle. Instead, they encompass all aspects of the transactional relationship between buyers and sellers in the supply chain”.

According to Hobbs (1997), transaction costs can be divided into three main classifications: information, negotiation, and monitoring or enforcement costs.

Information costs are incurred prior to an exchange, and might include the cost of obtaining price and product information as well as costs accrued due to finding a desired trading partner. Negotiation costs involve costs such as commission, terms of the exchange and the cost of negotiating contracts. Monitoring or enforcement costs are incurred after the exchange. Those costs involve terms such as quality requirements or payment commitments (Hobbs, 1997).

Transaction costs can be rather difficult to measure. They must first be identified and then be well-defined in order to be measured. Hobbs (1997) concluded that transaction costs are significant variables in beef producers’ choice of vertical coordination mechanisms.

It is notable to mention that the costs of transportation to a particular market outlet are considered marketing costs. However, “they can also be transaction costs if they are specific to that marketing channel” (Hobbs, 1997). If use of a particular marketing channel results in a change in transportation costs, then transportation costs can be considered transaction costs.

Schmitz et al. (2003) discuss the underlying reasons for a producer’s choice of marketing channels for stocker cattle in the United States. A theoretical model is developed to describe marketing channels using transaction costs analysis. The authors modeled supply and demand of marketing services for stocker cattle. Findings reveal that reduction in commissions decreases small producers’ ability to market cattle through internet and video auctions, as well as private treaty sales. It is also discuss that larger producers with lower transaction costs obtain a higher rent by marketing their cattle through alternative market outlets. The authors state that larger producers have a significant advantage in marketing stocker cattle, due to market accessibility. Smaller producers are generally left to market via public auctions.

In Hypothesis Two, the concept of price variability is introduced. This concept requires the understanding of price movements over time. The question here is whether or not strategic alliances serve to reduce price variability. Even though producers are able to forecast overall price trends prior to a sale, they are not certain of the actual price to be paid before the sale takes place unless the price is agreed upon prior to the sale. This phenomenon creates some uncertainty for producers. If the number of buyers at a sale is low, there is some risk that the price received will be lower than the market value.

Gillespie et al. (2000) utilized a model of industry evolution in agricultural industries describing four stages. In arriving at Stage Four, adjustment to risk and transaction costs, the authors state that increased risk occurs in association with increasingly large, specialized operations and high transaction costs linked to required idiosyncratic investments. They state that industry segments' relationships may become contentious if market power and profitability exist in one segment in particular. Vertical coordination among firms can lead to the reduction of risk as well as transaction costs.

For cattle producers, the issue of risk is important. Marketing management is a very sensitive field for cattle enterprises. Price risk might be handled by the use of contracts. However, first, it needs to be measured (May and Lawrence, 2002). The authors describe two main objectives to evaluate the risks associated with their management and marketing decisions. One is the use of forecasting and the other is the risk profile based on contracts.

The National Cattlemen's Beef Association has developed a joint working group to assess potential new risk management instruments and evaluate proposals to enhance the futures contract as a risk management tool. "The NCBA will form working groups according to cash settlements, weight specifications consistent with carcass delivery, serial contracts, heifer delivery and a boxed beef contract" (Barnhart, 20002).

Strategic alliances cannot eliminate price variability of cow-calf producers without shifting it to another participant in the system. Some strategic alliances in the industry sell directly to packing plants, establishing price levels according to a grid.

Producers are not in control of grading performance evaluations; thus, there is risk present with the grading system at the packing plants, which in turn would lead to price

uncertainty. The relevant question in our case is whether price uncertainty has been reduced for the cow-calf producer.

Hypotheses Three addresses farmer access to capital. This is related to the increase of performance in cattle operations. Access to capital would allow producers to expand operations or increase their level of technology, allowing them to achieve higher performance. Both the hog and broiler industries have addressed access to capital in two ways. First, initial capital outlay is lower for contract producers than independent producers of the same size if the contractor provides the animals and other inputs in the primary production stage. Second, some lenders are more willing to make loans to contract than independent growers.

Hypothesis Four addresses the flow of information along the production chain. Information is important in the decision making process. When making a decision about marketing a product and to whom to sell it, information on market prices must be obtained. Flow of information allows the different stages of production to transfer information on consumer preferences through the production chain. In this way, producers are efficiently informed of the animal characteristics demanded in the marketplace. Information may lead the industry to benefit from target markets with their respective demands. By pricing fed cattle on carcass characteristics, alliances seek to improve overall cattle quality by rewarding better cattle and penalizing poorer cattle. Packers return slaughter summaries and other carcass performance data to producers and feeders to provide information on how their cattle performed. “This information allows for adjustment to genetics and/or management to maximize future returns. The information provided by the alliance is not usually available to producers in cash market

transactions where price is determined on a live-weight basis” (Schroeder et al., 1998).

Hypothesis Five is directly concerned with the use of alternative marketing outlets for animals of specific traits by cow-calf producers. The incentive for producers to use new market outlets for animals with specific traits might be to develop better strategies to increase performance and obtain premium prices for top quality animals. Strategic alliances use different marketing practices as alternative outlets, such as: auction barn, video auction, private treaty sales, internet cattle marketing, retained ownership and others. An auction barn is a central location where several buyers are able to bid on cattle, once or twice a week. Primarily, order buyers attend the auction, and the highest bidder purchases the cattle. It is an efficient mechanism but also faces difficulties, such as: (1) small numbers of buyers on some days, with less competition reducing prices. (2) No true animal value may be established, with value being based on buyer perceptions. (3) Some buyers may demand a truckload, but are not willing to pay premiums for quality animals. (4) Commission and transportation costs are incurred by the seller. Finally, (5) shrinkage costs are also incurred by the seller (Gillespie et al., 2004).

“Marketing agreements and alliances also eliminate the risk of pricing cattle on a specific day, possibly a particular traded day with high price variation. Alliances also ensure market access for producers who are increasingly concerned with captive supplies of packers, with some even allowing for feeder determined delivery scheduling that improves fed cattle performance on the grid” (Schroeder et al., 1998).

Using video auction, animals are videotaped. Videos are sent to a central location where buyers bid on lots of animals based on video and description provided. There is less commission cost incurred, and buyers may enforce pencil shrinkage since animals

stay at the farm. There usually are larger numbers of buyers, premiums are paid for quality animals and, if prices are inadequate, the seller may “no sale” at low cost. A limitation is the large number of animals needed to use video auction. In the case of private treaty sales, buyers are more likely to demand specific animal traits and may pay premiums. There is no commission cost incurred in this marketing method, and the seller generally must gather enough cattle to fill a truckload.

With retained ownership, the seller generally maintains ownership of the animals through the feedlot, and the producer is paid when animals are slaughtered and marketed. This marketing practice gives producers an opportunity to increase their average returns and obtain valuable information on how their animals grade. The use of internet cattle marketing brings flexibility to buyers, who can obtain information on a specific animal via the internet. There is no commission cost incurred and it is accessible to different buyers at any time. Construction of web sites is done by the seller, including specific information about animal types and characteristics (Gillespie et al., 2004).

Results of this project will present information to help to assess the decision to fail to reject or reject the null hypotheses, based on information collected from interviews conducted with each of the six strategic alliances. The hypotheses were established according to literature related to the formation of strategic alliances and their benefits to the U.S. beef industry.

Formulation of Questions

A questionnaire was developed containing questions regarding production, economic and general characteristics, as well as industry performance issues. The sections of the questionnaire are structured in a predetermined sequence such that the

interviewees can be kept focused. There are 57 questions on the questionnaire. See Appendix 3 to view the questionnaire.

Sample questions include: “What was the reason to form the strategic alliance?” This question allows the interviewer to uncover intentions and particular situations that drew producers to form strategic alliances. Through the question, “Could you describe the mechanism through which information flows among stakeholders in the alliance?”, the study identifies communication channels throughout the alliance. In cases where the respondent does not understand the question, the advantage of the personal interview is that the interviewer has the flexibility to re-word the questions such that the respondent better understands them.

Production characteristic questions are used to gather technical information regarding production efficiency, production levels, government participation, and other factors. With these questions, the study is able to determine differences between the strategic alliances studied. Of the economic characteristics questions, the questionnaire asks about the costs associated with forming alliances, the economic benefits, and the prices received. Information gathered from this section will reveal economic issues important in forming alliances. The objective here is not to fully characterize the economic situation or conduct a feasibility analysis, but to identify the important costs and benefits associated with strategic alliances. The final section of the questionnaire is concerned with beef industry performance, where interviewees are asked their opinions about the suitability of implementing strategic alliances in the industry as a whole.

Data Collection

Personal interviews were conducted with administrators of each of the six

strategic alliances. An introductory letter was sent to the administrative office of each strategic alliance, containing a brief explanation of the project and its use of information collected (See Appendix 1). Appointments were scheduled according to the strategic alliance administrators' availability. Interviews were conducted at each strategic alliance location by applying the questionnaire, tape recording the information provided by the administrators, and also taking notes. With the exception of the Piedmont Cattle Marketing Association, two interviewers were present at each interview. A consent letter was signed by each administrator; the letter explained the purpose of the information collected and the possibility of publishing the results of the questionnaire (See Appendix 2).

After conducting each interview, the information collected was compiled and written as a transcript. Post-interview communication with the strategic alliance administrators was established in order to clarify answers to any particular question. Administrators then read the transcripts and approved the content, providing the researcher with validation of interview results.

Data Analysis

After data collection, results were analyzed for each strategic alliance. Analysis explores differences in alliance structures and organization. To analyze differences in alliance structures, descriptions of issues, such as size of cattle operation, production requirements, history and origin of the strategic alliance, phases of production and financial sources will be discussed. Hypothesis tests are conducted and the general structures of the strategic alliances are compared and contrasted.

The case study methodology was expected to be a suitable method for collecting

data in this case, accounting for non-quantitative variables that would not be properly addressed using a quantitative methodology. It uses primary data sources, thus providing the resources needed to complete the objectives.

CHAPTER 3

STRATEGIC ALLIANCE DESCRIPTIONS

The following are complete transcripts of information obtained from the interviews conducted with the six strategic alliance administrators. All the information provided in the transcripts was gathered via personal interviews and has been reviewed and approved by the alliance heads.

Vernon Beef Alliance

Interview conducted by Angel Bu, LSU MS candidate, Jeffrey Gillespie, and Robert Boucher on September 22, 2003.

The following is a description of the information provided by Mr. Cleve Weisgerber.

Company Origin and General Characteristics

The Vernon Beef Alliance was formed in 1999, the idea of a relatively small cattle producer in Vernon parish. His intention was to find a market outlet through which he could sell cattle at higher prices. The Alliance was later formed with twenty-three members of average age, 60-65 years, all cow-calf producers. The cow-calf phase was and continues to be the only phase of production in which the Alliance is involved.

Prior to formation of the Alliance, the majority of producers in the area did not have enough calves to sell truck load lots of animals. Thus, unless they pooled cattle with another producer, their only option was to sell via the auction barn. They felt that prices were not as high as they could obtain in alternative markets for their calves, and that transactions costs associated with selling via the auction barn could be reduced via an alternative market. They brainstormed about how they could pool their calves together and obtain higher prices. Marketing truck loads of cattle would give the producers other

options through which to sell calves, such as video auctions and private treaty sales.

Marketing and Production Characteristics

Through the Alliance, producers have been able to expand marketing options through use of video auctions and private treaty sales. Some producers have increased the sizes of their operations, while others have decreased their sizes.

The Alliance has specific animal characteristics required as determined by the membership. Producers voted to use Angus bulls so that their offspring would be black, which generally results in a higher price. Lots may also contain some other color animals, but when calves are advertised, contracts establish “95% black, 5% red, and 5% smutty”. The Alliance generally advertises calves as $\frac{1}{2}$ Angus and $\frac{1}{4}$ Brahman. While there was some consideration toward marketing organic beef as a specific product via the Alliance, the producers decided against this strategy.

Producers currently own about 40-45 Alliance-purchased bulls. Producers have purchased 60-65 bulls over the last 4 years via the Alliance. Alliance members purchase bulls together to make certain there is uniformity in calves. There are around 700-750 cows dedicated to the Alliance. Some producers keep replacement heifers. As mentioned before, the Alliance is formed with cow-calf producers; thus, there are no stockers or feeders being sold through the Alliance.

Producers raise calves to weights ranging from 400 to 750 lbs, to be shipped in August. The Alliance has different contracts for different weights, categorized in weights of 450 lbs, 500 lbs, 550 lbs, 575 lbs and 630 lbs. With these five contracts, almost any calf would fit into one of the loads. They are weighed in June and their projected weights in August determine in which load they will fit.

The breeding season is from March 15 to June 15, with heifers having a breeding season of 30 days longer (February 15 to June 15). The requirement of a breeding season has allowed the Alliance to use better market outlets, due to market indicators on specific selling months and synchronization. Previously, most producers did not have specific breeding seasons. Thus, Alliance members have a calving season that ranges from December 15 to March 15.

There are some production requirements for all animals, as well as some management practices enforced on all producers. Vaccination, castration, implants, worming and dehorning are management practices required by the Alliance in order to deliver a high quality animal to the market. The Alliance encourages creep feeding of calves while on the cow, though this is not required but gives better production results. Knife castration is required for every bull calf. An implant with synovex C a calf implant with no side effect on heifers is required. The following vaccines are given: blackleg (7-way); IBR (Infectious Bovine Rhinotracheitis), BVD (Bovine Virus Diarrhea) and pasturella are given two weeks prior to shipment, as guaranteed to the buyer. Producers are taught in workshops how to work calves including which vaccines to give, where to give them, how to give them, and which needle to use.

Enforcement of these practices is done by internal, informal policing, as producers are involved in working the animals of other members. Instead of one individual serving as a “policeman”, all are responsible since all within the subgroup of 7-8 producers are present for working calves. They know when something is being done incorrectly due to Alliance educational programs. The alliance has a reputation to maintain; thus, making sure all practices are implemented and performed in the correct

way provides quality assurance. Over time, it is expected that more traceability will be required in the industry, these requirements are needed.

Each producer keeps his or her own records, though the Alliance has not emphasized record keeping very much. The Alliance has implemented a tagging system, such that producers can determine which calves belong to whom. Tags have seven different colors and each producer is numerically coded. For example, 01-99 is assigned to a particular producer, 100-199 to another producer and so on. This system improves calf handling and record keeping when selling animals. The Alliance has sold approximately 2,500 head of cattle in the last five years of operation.

Economic Characteristics

Given the reduced dependence on auction barns, producers have been able to reduce the following transaction costs associated with selling via the auction barns: commission, shrinkage, transportation costs, insurance costs, feed costs, and veterinary costs. They have been able to sell via video auction with commission costs reduced from 5% to 2% of the selling price in auction barns. Also at the auction barn, there is often significant shrink, as much as 25 pounds per calf as the calves are transported and kept prior to the ring. Using private treaty sales, calves are not weighed until sold on the farm. Using video auction, the pencil shrink is about 10 pounds. Alliance calves are sold as soon as they are weighed, resulting in lower shrink. Transportation cost is paid by the buyer, so producers do not incur this cost. In accordance with these factors, producers in the Alliance likely incur lower transaction costs than non-alliance producers of similar size. Producers have been able to sell via private treaty, generally resulting in higher prices, but facing the inconvenience of sometimes having a smaller number of buyers.

Using video auction and private treaty marketing practices, producers take offers from buyers; if they are not presented a desirable price, they do not sell. When they sell, the sale is through contract. It is determined which calves go into which buyer's contract. Afterward, the buyer writes a check to each producer. Payment never goes through the Alliance.

Alliance members also benefit by buying inputs in bulk, including:

- * veterinary medical supplies
- * ryegrass seed
- * hay twine
- * other production inputs.

Buying in bulk allows members to secure inputs at lower per unit prices.

Members are not, however, required to buy inputs through the Alliance. In fact, most inputs are bought individually.

A major benefit of membership in the Alliance is that members have been able to improve their management practices by learning from other producers and working together. Unification of members has helped them to obtain assets more cost effectively. For instance, producers pooled resources to purchase a set of scales, with each member contributing \$140. Scales are transported among the farms so that producers can track weight gains (and, thus, average daily gains) to evaluate performance.

Organizational Issues

The Alliance consists of a chairman, a treasurer, and a purchasing agent, all of which are members Alliance. There are no employees in the Alliance; therefore, there is no salary assigned.

Members meet once every two months, on an as needed basis. In addition to business meetings, they also organize a Christmas party annually as a social gathering. All members work together. There are three divisions in the Alliance, with each division making certain that members have assistance when needed. The divisions function such that there are 7-8 people available whenever calves are worked. This also serves to enforce good management practices that meet Alliance specifications. Each member in the Alliance owns his own land, with the exception of one producer who rents. The Alliance does not own or lease any land or cattle.

There is no government assistance to the Alliance other than the assistance of an extension agent, Cleve Weisgerber, though the LSU Agricultural Center. The Alliance is self-funded by its own members. There was no initial cost associated with forming the Alliance.

Decisions are made in a democratic manner. While every producer may not agree with all decisions, they must be willing to abide by group decisions. When purchasing bulls, Cleve Weisgerber, who is also a member, purchases all bulls. Bull numbers are then placed into a hat and drawn by the producers. Each producer pays according to the actual price of the drawn bull. There was a case when the Alliance members each budgeted \$1500 per bull, looking for better genetics and quality bulls to increase quality of the cattle operation. Members decided to buy 11 bulls and were able to purchase for \$1150/bull, since they were purchased “in bulk”. During purchasing, Mr. Weisgerber chose the bulls and told the producers present that, if something was wrong with a bull, to point it out and they would take it off the order list. This way, producers would be purchasing according to their consent.

There are some requirements established for a producer to join the Alliance. At least 10 cows need to be designated to the Alliance; this number of cows was determined to allow small producers a chance to join the Alliance. Some producers have more than 10, and some designate all of their cattle to the Alliance. There is a \$50 initial membership fee to help cover operational expenses. The Alliance serves members only.

Performance and Management Background

Information on prices, inputs to be purchased, educational programs, marketing options, operational requirements and other types of information are passed among Alliance members. Some members subscribe to beef magazines to obtain information. Also, by watching video sales and sharing personal experiences, members are able to receive information. On an individual basis, some members are associated with the Louisiana Cattlemen's Association, where they obtain information regarding beef cattle.

Mr. Weisgerber indicates that the greatest advantage of the Alliance is the value of education to the producers. With the educational programs, there has been an increase in the use of better management practices that result in a higher quality animal that, in turn, leads to greater returns.

Cleve Weisgerber has worked for the LSU Agricultural Center for more than 30 years, taught school for more than 2 years, worked at a Western Store prior to that, and has been around cattle operations for more than 35 years. He stated that participation in an alliance is better achieved with a well-respected, experienced and knowledgeable person as its leader. He concluded that marketing is a key element to the success of a strategic alliance, but good management is the most valuable element.

Gene Net Alliance

Interview conducted by Angel Bu, LSU MS candidate and Robert Boucher, in Hays, KS, on October 6, 2003

The following is a description of the information provided by Dr. Ken Conway.

Company Origin and General Characteristics

The Gene Net Alliance was established in 1998, with Dr. Ken Conway as its head. The Gene Net Beef Alliance is an agreement with Swift & Co., which operates three packing plants at Grand Island, Nebraska; Greeley, Colorado; and Dumas, Texas. The Alliance involves feeding, stocker production, cow-calf production and beef packing.

The Alliance was originally formed to help beef producers at different segments of the production chain to receive higher prices for their animals than what they would receive if their animals were sold via the sale barn. The idea was not to simply produce a heavy calf at weaning; instead, it was to let the consumer dictate the type of calves the producers needed to produce.

Dr. Conway has extensive experience in the cattle industry, and has the resources to procure high quality cattle from different regions in the U.S. for inclusion in the Gene Net Alliance. Dr. Conway's main objective, as head of the Alliance, is to obtain the best quality cattle to fulfill the packing plant demands, and to be able to negotiate a higher price for the cattle. He is self-employed as the Alliance administrator.

There is an exclusive grid used for Alliance animals, designed for high quality cattle. The grid is considered capable of efficiently sending economic indicators back to the producers. The Alliance avoids dealing with any specific cattle production requirements. Quality cattle are obtained through Dr. Conway's experience. The grid

sends signals on how the cattle perform on specific traits. The grid does not change, as it is a locked formula. Gene Net keeps track of the data. The Alliance's ability to obtain the data is better than the ability of a producer outside the Alliance. The grid was established as a contract with Dr. Conway and Swift Co., to bring in 100,000 head of quality cattle a year. Dr. Conway estimates that the Alliance provides cattle that are 20 to 30 % better in quality than those the plant is procuring from the average seller in the industry. One of the reasons the Alliance was able to establish its own grid is because Dr. Conway was able to guarantee high quality cattle in large volume to the plants, which demand high quality. With a larger number of animals, there is more power to negotiate with the packing plants. There are 140 feedlots located in 10 states and approximately 1,300 to 1,400 commercial, cow-calf producers from about 25 states who are involved in the Alliance. The Alliance works with packing plants at Grand Island, Nebraska; Greeley, Colorado; and Dumas, Texas.

There are a number of cow-calf alliance producers who retain ownership of their animals all the way to slaughter. These producers obtain all data on how their carcasses grade. However, there is no requirement that cow-calf producer members retain ownership in order to enter the program.

Some feedlots purchase calves and carry them until slaughter, and provide the data back to the cow-calf producers. These cow-calf producers, who have not retained ownership, must pay \$2 per head to get the data from the feedlots.

The Alliance also obtains some cattle through order buyers from video auction or sale barns. One must remember that the main objective is to guarantee higher quality

animals to the packer; if these animals can be procured through these outlets, then some will be purchased in this manner.

Members of the Alliance benefit from access to the grid and ability to receive carcass data. There are other benefits for producers in marketing their cattle to the packing plant via Gene Net, rather than selling via a packer order buyer. Not all producers are able to assemble large enough lots to be sent to a plant, and in some regions, they are not able to locate a packer order buyer. The Alliance allows these types of producers to ship cattle directly to the feedlots. Through Dr. Conway, the Alliance is able to receive top prices via a bidding process. The feedlots attract the major packer buyers, so they are able to negotiate and receive higher than average prices.

No meetings are held among Alliance members. Dr. Conway sends out letters three times per year, specifying improvement on the grid structure, how the program is doing, and any other issues facing the alliance. Members of the Alliance, especially small producers, may work together when assembling truck loads of cattle. Almost 50% of the producers in the program fall into the category of “small” producers, especially feeders located in Iowa and Nebraska.

An office administrator handles all of the data and Dr. Conway runs the Alliance. These are the only two people considered employees of the Alliance and earning a salary. Decisions in the Alliance are made by Dr. Conway; the Alliance is independent with no state or federal sponsorship. The Alliance provides no technical support other than carcass information directly to producers. Dr. Conway may facilitate veterinarians and nutritionists to address producers who need assistance.

Members pay fees on a per head sold basis. A \$3 fee per slaughter animal is used to defray office expenses. There are no requirements of members, except that their cattle are sold under the grid, which provides producers information on their cattle. Producers are able to decide whether they want to stick with the grid or sell cattle live to the packer, but most realize they can make \$30-\$50 dollars per animal more on the grid. In some cases, producers custom feed their cattle in the feedlots in order to be included in a higher pen (over 100 animals) to be sent to the packing plants; those are not included in the grid. These types of producers are considered non-Alliance members. With a larger pen, price negotiation improves substantially and these types of producers receive more benefits.

Marketing and Production Characteristics

Smaller producers have been able to receive higher prices for animals since joining the Alliance. They can work together to assemble lots such that they receive data back to improve management practices and, ultimately improve quality. With the grid information, producers are able to offer better quality and receive higher prices at the feedlots. Feedlots pay more to producers under the grid because they know a higher quality animal would also yield a greater price on the grid.

Opportunities to market specific breeds through Gene Net began with the Angus breed, because of greater assurance of obtaining higher marbling. Now, two other breeds are handled and may fulfill requirements for higher quality beef. These are also marketed via Gene Net. The divisions managed by Gene Net are classified according to breed: Angus Gene Net, Brangus Gene Net, and Charolais Gene Net. The Alliance has not developed a branded product, though there are plans to eventually establish one.

Production management practices are handled individually by the producers. No inputs are procured by the Alliance, nor is any labor force formally shared among members. The Alliance itself does not own or rent land or cattle. There were 100,000 head of fat cattle handled by the Alliance in 2002 with no specific required animal characteristics for color, genetics or breed, though there are certain groups of producers within the Alliance that handle Angus, Brangus and Charolais breeds. There are no requirements for uniform weights on calves.

The ranges in carcass and live weights are 535 lbs to 950 lbs, and 900 lbs to 1500 lbs, respectively. There are no specific vaccination requirements, but the Alliance recommends preconditioning and explains to producers how it can help. Dr. Conway says that there is an effort to educate members, but it takes time to assure better quality and higher performance. A specific breeding season is not required. The Alliance commits significant resources to locate Fall calves, given that about 75% are Spring calves. With a greater supply in the winter than in the summer, there is significant variation in price. The Alliance encourages Fall calving, for economic reasons.

Castration of calves is not required. However, late castrated males are generally docked on the grid, as late castration generally cuts marbling. There is no castration method specified. Implants are not required. The alliance suggests a less aggressive implant strategy that would yield the greatest returns. If implants are used, there are some recommendations made in their use, such as (1) Do not use hot implants back to back, (2) Do not use a double dose of two of the same implants, and (3) Pull any implant 85-90 days before slaughter. Creep feeding is not required, though preconditioning and creep feeding would generally yield better marbling results. Dr. Conway states that nutrition is

very important, and that creep feeding “pays for itself”. No grazing system is specified in the production process. Since no management practices are required, no enforcement of management practices is needed.

The record keeping process takes place as producers fill out a form for each animal, and send it to Dr. Conway. The form includes vaccinations, implants and any other medicine provided to the cattle. Dr. Conway keeps the records with the information provided by producers. Feedlots account for cost and weight gains on cattle. The Alliance tries to get as much background as possible on the cattle even when they come from auction barns.

Economic Characteristics

Initial costs incurred in forming the Alliance were the purchase of office equipment and travel expenses associated with organizing the Alliance.

Both members and non-members obtain price information through the Alliance. Carcass data are provided to producers at lower cost than what they would pay to a private institution collecting the data. The fees for carcass data at the Grand Island, NE, and Greeley, CO, plants are: group data, \$3; normal data, \$5; and complete data, \$6 per head. In Dumas, TX, group data are \$3, normal data, \$6, and complete data, \$9 per head. Of the different types of data collected, according to Gene Net (2003), group data do not include data for individual animals. It includes group averages in all carcass categories. These averages are compared to performance of all cattle killed in the plant.

Normal data are data for individual animals (individual ear tags). This data include hot carcass weight, quality grade, yield grade, whether the carcass was CAB

(Certified Angus Beef) or AP (Upper 2/3 USDA Choice), and the difference between the individual carcass price and the average carcass price for animals in the plant.

Complete data (Individual ear tags) are also collected for individual animals. These data include hot carcass weight, marbling scores, quality grade, rib eye area, fat thickness, % KPH (Kidney, Pelvic, Heart Fat), CAB (Certified Angus Beef) or PGA (Percentage Grade Average) and a calculated YG (Yield Grade).

Commission fees at sale barns or to order buyers are avoided via Gene Net. Dr. Conway charges \$3 per head in the program as a flat commission fee to producers; otherwise, he states the commission would be around 5% at a sale barn.

Concerning transportation costs, Dr. Conway coordinates trucking in different regions among producers such that they can ship together and lower transportation costs, but costs are incurred by producers.

According to Dr. Conway, producers in the Alliance generally obtain higher prices than those outside the Alliance, due to the grid. One feedlot sold about 4,800 head in 2003, and they averaged \$32.62 per head premiums above what they would have received if sold live. In Nebraska, 3,100 head of cattle were sold, at an average premium of \$44.75 per head relative to what they would have received if sold live.

By joining the Alliance, smaller producers know they will receive better prices than by selling through a packer order buyer. Payments are made by the packing plant directly to the producers when retaining ownership, deducting the \$3 fee to Dr. Conway.

Performance and Management Background

There is a web site to inform producers about updates, and there is some advertising.

The grid data belong to the owner of the cattle, feedlots, or producers if they retain ownership. Grid data are first sent back to the feedlot. In the case of producers who do not retain ownership, feedlots decide whether the data are to be passed on to producers. Some feedlots do not pass the data to the producers. This is a matter of convenience to the feedlots.

When information is passed along the production chain through the Alliance, cow-calf producers receive carcass data, recommended management practices, genetics recommendations and advising on improvements that can be made.

The Alliance is associated with the Angus, Brangus and Charolais Cattleman Associations. On an individual basis, producers may also be associated with other groups. There is no specific capital or monetary incentives to Alliance producers to expand their operations.

In addition to advantages mentioned throughout this thesis, producers receive advising on nutrition and genetics. There are no major disadvantages discussed with respect to joining the Alliance.

The management background of Dr. Ken Conway starts with Bachelor's and Master's degrees from Kansas State University, 25 years of experience in the purebred beef industry, and work in embryo transfer and cloning at R & J Ranch in Texas (one of the very first involved during the early 1980s). He has experience selling cattle nationally and internationally. In 1993, he pursued a PhD degree in Beef Cattle Science at Texas A&M University. He always had an interest in a totally integrated cattle system, which gave him the idea of forming an alliance after finishing his PhD in 1996. He worked with

Beef America, in 1995-1997; it was the fifth largest packer in the U.S. After that, he decided to form Gene Net Alliance.

For a successful alliance, Dr. Conway mentioned the Alliance needs to be flexible. Producers in Gene Net are not required to use any specific management practices. The Alliance also needs to be able to negotiate a good grid that is competitive in the industry.

B3R Country Meats

Interview conducted by Angel Bu, LSU MS candidate and Robert Boucher, in Childress, TX, on October 7, 2003.

The following is a description of the information provided by Mr. James Henderson.

Company Origin and General Characteristics

The B3R Country Meats Alliance was formed with two feedlots and 150 cow-calf producers. The Alliance is involved in calf production, feeding and packing. The feedlots, located in McClain and Wheeler, TX, ship cattle to B3R, a packer in Childress, TX. Both feedlots are 70 miles from Childress. The 150 ranches that supply calves to B3R are located in 17 states. All animals are fed in one of the two feedlots before being shipped to B3R. Not all feeders in the two feedlots are shipped to B3R.

The Alliance was originally formed out of a family ranch to help ranchers to better perform in business. Inconsistent quality beef had caused consumers to alter their preferences toward other types of meat, effectively decreasing beef demand. Thus, there was a need for improvement in ranch production practices.

The Childress, TX, packing plant was built in 1986. Its association with feedlots began in the early 1990s and cow-calf producers became involved at that time. In 1996,

cow-calf producers began retaining ownership of cattle. The main benefit to cow-calf producers in becoming involved in the Alliance is that cattle are graded on a grid, from which they can receive higher prices for higher quality animals. They also receive data from B3R on how their animals grade, which helps them in making production management decisions.

B3R runs the Alliance; the plant is the Alliance's only asset. There are 75 employees in the packing plant working for hourly wages. The Alliance is self-funded; it does not receive financial support from either state or federal governments and receives no sponsorship from another institution.

Cow-calf producer members of the Alliance meet at least once a year. In 2003, the Alliance conducted several regional meetings. Producers in the Alliance are encouraged to visit the plant when they have cattle slaughtered, check the data, and discuss the information provided.

Producers work individually in transporting animals to the feedlot, as most are able to fill truck loads of cattle. However, B3R has worked with producers in helping to arrange transportation such that they could ship their cattle together. Producers pay transportation costs to both the feedlot and to the plant. Since the program is based on retained ownership for all producers, producers incur all costs until the cattle are slaughtered.

Decisions on production practices are made by each cow-calf producer, except for some primary requirements of all producer members. The three primary requirements are: a) cattle must never have been implanted, b) cattle must never have been exposed to antibiotics and c) cattle must go through a VAC 45 program. There are a number of

variations in the Alliance's vaccination program; however, all include at least two rounds of vaccinations and must have been weaned at least 45 days before they are shipped to the feedlot. It is required that animals receive a clostridium vaccination, the respiratory vaccine Cattle Master Four (Manufactured by Pfizer, is a modified live IBR and inactivated BVD viruses) and a pasteurella vaccine. There is not a specific brand required for medical products; this is decided by the producers.

Every vaccine applied to the cattle is recorded and provided to the packing plant (B3R). This is of great importance since natural beef is being sold. Records also account for any other medicine applied, management practices incurred, genetics, and weaning weights. From the feedlots, individual weights and daily weights are kept for the packing plant.

Marketing and Production Characteristics

B3R works directly with retailers to market its product. The Alliance created B3R as a branded product, which is a natural beef product targeted to retailers such as Winn-Dixie and Wal-Mart.

Producers receive all the carcass data from the plant on each animal sold, and are able to analyze the quality of their animals, allowing them to improve their cattle operations. Some producers have increased the sizes of their cattle operations since joining the Alliance, due partially to the feedback information to improve cattle performance. There is no specific breed required by the Alliance, but premiums are paid for Angus cattle.

Production inputs are procured by individual cow-calf producers and by the feedlots; no input is procured through the Alliance itself. B3R has worked with producers

in educational programs, providing them with carcass information and advice on genetics, and has provided site visits. There is no common labor force shared among members. The Alliance does not own land or cattle.

Given that cattle are produced under different conditions (17 states). The alliance is flexible on weights of cattle coming into the feedlots. The Alliance may encourage producers to take cattle to 750 lbs prior to shipment if there is enough quality forage available. When not enough quality forage is available, producers may be encouraged to ship at 500 lbs. There are cases when it is relatively inexpensive to feed forage, so beginning feedlot weights of around 850-900 lbs are acceptable. B3R attempts to teach cow-calf producers how to produce a consumer product at least cost, depending on geographic location. The situation is not the same for a producer in Oregon compared to one in Florida.

B3R attempts to provide producers the proper incentives and signals to make the best decisions for maximum profit. B3R encourages its members to utilize optimal nutrition. The Alliance encourages no more than a 60 day calving season. About 80% of the calving is in the Spring and 20% in the Fall. Castration is preferred before bull calves weigh 300 lbs. There is no specific requirement on grazing systems; this is up to the producers. Creep feeding is encouraged by the Alliance, but it is not required. Cattle are slaughtered at a range of 1150 to 1300 lbs, on live weight.

Economic Characteristics

B3R does not charge a fee to members for data. There is no commission applied to producers associated with placing animals in the Alliance program.

B3R pays premiums for quality cattle. With the carcass data, producers are able to evaluate their cattle performance, and, based on results, producers receive a higher price. Mr. Henderson states that producers in the Alliance receive higher prices for animals than do producers who produce the same quality animals, but who sell to other outlets. He estimates that the average payment is about \$60 per head (around \$0.05 to \$0.06 per lb) over the price that would be received for similar quality animals outside the Alliance. Cattle are priced on a unique grid, which includes actual marbling scores, rib eye size, back fat, percent KPH (Kidney, Pelvic, Heart Fat), carcass weights, Angus genetics premiums, no-implant premiums and hide brand location. All of these characteristics are assessed for each animal. B3R pays more for quality since it is producing a specific branded product.

B3R sends all information on the grid to producers, allowing them to analyze which animals in the future should be sold elsewhere versus sold via B3R. The typical strategy is to sell the better cattle through B3R and the lesser quality cattle to the sale barn. The Alliance encourages producers not to feed non-performing cattle; instead, they are encouraged to sell them at a sale barn. The grid information allows producers to analyze their cattle performance; therefore, they are able to restructure their management practices to obtain higher quality cattle. This process leads producers to be able to sell higher and hopefully more consistent quality cattle and, therefore, be able to obtain a better price, perhaps reducing their price uncertainty.

Payments to producers are made by the feedlots. Feedlots keep records of which producer is financing feed and which is paying on a monthly basis. Producers' profit sheets are written by B3R and sent to the feedlots, who finally send them to each

producer. Profit sheets contain information on cattle performance and grading levels. Feedlots need profit sheets to establish a payment and issue the checks to producers.

Performance and Management Background

There are about 4 to 5 newsletters printed and sent to members each year. The information flow is from the packing plant to the producers. The Alliance conducts audits on both feedlots every quarter. Audits are based on an established protocol stated by B3R. Two people, employees at the packing plant, visit the feedlots every week, examining the cattle and deciding when they are ready to slaughter. There is a lot of verbal advising to producers. Information is also sent electronically to members via a web site. The information sent back to the producers is rather extensive; the information is on individual animals, and there is a system to rank the animals from top to bottom. At the moment animals are slaughtered, grid information is collected by personnel at the plant and processed in 48 hours at the least amount of time and 10 days at the most, and later introduced into the computer data base. Personnel from the packing plant determine marbling score, rib eye, and other relevant measurements.

Participation with beef cattle associations exists within the Alliance. James Henderson is on the board of Texas Cattle Feeders, involved in the CBA (Cattleman Beef Association) and Texas Southwestern Cattle Raisers. B3R visits Florida Cattleman and New Mexico Cattle Growers for advising and development purposes. Membership in the Alliance does not explicitly provide additional opportunities for members to access capital for expansion or improvement of operations.

Considering some of the advantages of the Alliance structure, the goal has been to discover where the problems are and how to get them solved at all levels in the

production chain. As advantages, producers receive grid information to improve their cattle operations.

The management background of Mr. James Henderson includes extensive experience in the field. He earned a BS degree in Animal Science at Texas A&M University and a graduate degree in Meat Science at Texas Tech University. He has 25 years of experience in the meat packing industry, is President of Southwest Meat Association, and is on the board of the Texas Cattle Feeders Association. In his opinion, there are a number of things very unique about the U.S. beef industry. The U.S. is one of the few places that grain feed beef animals; the cost would be higher elsewhere. There are cheaper inputs outside the U.S. that could be taken advantage of to produce good quality animals, but efficiency, technology, innovation and genetics are advantages the U.S. beef industry has over the rest of the world.

Caprock Cattle Feeders

Interview conducted by Angel Bu, LSU MS candidate, and Robert Boucher, Research Associate, in Amarillo, TX, on October 7, 2003.

The following is a description of the information provided by Mr. Ben Brophy.

Company Origin and General Characteristics

The Caprock STAV (sharing total added value) Beef Alliance is a division of Cargill, Inc., formed with Caprock Feedlots and cow-calf producers. It is designed to allow beef cattle producers to participate in the value creation process through the entire beef production system without retaining ownership through the feedlot and packing plant. Caprock is a cattle feeder operating four feedlots of their own, feeding 100% of their own cattle and coordinating with suppliers (cow-calf producers). Cattle are

purchased from 16 states, basically the primary beef cattle production states in the U.S. and a few operations in Hawaii. Caprock Cattle Feeders is allied with Excel, another division of Cargill. Caprock Beef Alliance consists of cattle feeding and cow-calf production. The major reason for its formation was to improve the quality of cattle in Caprock's feedlots and the quality of product from the processing plant.

Caprock began by improving their personnel's skills needed for buying cattle and providing buyers with better information on the cattle that they were buying so they could improve purchase decisions. Caprock realized it also needed to go the next step and provide feedback to cow-calf producers. They structured a program to keep detailed information on carcass quality, and to transfer feeding and packing plant performance information into the hands of cow-calf producers. Overall, the system empowers Alliance members to improve the supply of cattle entering the market.

Business planning for Caprock Beef Alliance began in November, 1999, and the Alliance was formed in March, 2000. Production meetings were held throughout the country, asking producers about a suitable structure for the program. One of the key assumptions in the planning was that Caprock feedlots was going to own the cattle, with no retained ownership or any other marketing practice.

Mr. Ben Brophy runs the Alliance from an administration standpoint. Field men (buyers) deal directly with the suppliers. Buyers are located throughout the U.S. There are approximately 20 employees in the operation, including buyers and administration. Of the 4 feedlots, 3 of them are within an 80 mile radius of Amarillo, TX, and one is in Western Kansas. Others involved in the Alliance include a Meat Scientist at Excel (packing plant) who is used as a consultant, and cattle feeding specialists who interpret

results. Buyers are paid commission on the cattle they purchase. Mr. Brophy and some of the cattlemen working in the feedlots are the only persons who earn a primary salary through the Alliance.

The primary benefit to cow-calf producer members is to receive data on their cattle. Caprock establishes an agreement with the producer at the time of purchase. It spells out how these cattle are to be evaluated through the Alliance and how the Alliance works. There are about 225 companies (producers) from which Caprock buys cattle.

The main model of communication between the Alliance and its members is through the buyers in the field. The Alliance also publishes newsletters twice a year. Caprock meets with groups of producers annually. Mr. Brophy visits the feedlots once per month and producers are encouraged to visit the feedlots. This allows them to compare their cattle to others. There are also planned trips to the packing plant for producers to see their cattle being graded. For every cattle close out (harvest at feedlots) there is a one-hour conference call between the buyer involved, the producer and Mr. Brophy. They interpret the data, making sure the producer understands all of the measurements. They interpret the strengths and weaknesses of the cattle, and provide benchmark comparisons to the rest of the cattle population.

About 95% of the members ship over 300 calves annually, while the remaining 5% ship as co-mingled groups from multiple smaller producers. Family members or neighbors with similar breeds sometimes ship together. These producers are typically located in the eastern states. Caprock establishes 120 head per pen as a minimum size.

Most management decision making is left to each producer. The alliance advises and recommends different management practices and handles meetings to evaluate

performance. All technical support is provided and funded by Caprock. While some alliances pay premiums to producers who use specific management practices, Caprock pays on the actual value that has been created at the end. If producers create more value, they receive a higher price. Caprock provides guidelines, as far as management practices, breeding practices, and phenotypic parameters. As requirements, the number of cattle sold needs to fit the pen, which is 120 animals. All weaned calves follow a VAC 45 (Value Added Calf and Weaned for at least 45 days) program or a preconditioning (VAC 34) program.

Caprock Cattle Feeders promotes weaning (VAC 45) and preconditioning (VAC 34) programs on the ranch through their buyers. Buyers go through both programs with each producer. These two programs are held on the ranch prior to delivery of calves to the feedlots. Producers follow forty-five day weaning. At branding (approximately 2-4 months of age), they give a 7-way clostridial, and a killed 4-way viral vaccine including IBR-PI3 or CattleMaster 4 (Manufactured by Pfizer, a modified live IBR and inactivated BVD viruses). At this point, bulls are castrated and all calves are implanted (optional). At weaning, the calves are given 4-way modified live virus IBR, BVD, BRSV, PI3, a Pasteurella vaccine, and a booster for the 7-way clostridial. A hemophilus vaccine is optional. Supplements include vitamin E-AD 300 units E plus A-D, a parasiticide (internal and external), doses of selenium or other trace minerals (as the regional nutritionist dictates) and an optimal implant. Fourteen to 21 days after weaning, they boost the 4-way modified live virus vaccine and boost the hemophilus, if given at weaning (Caprock Industries, 2003).

Preconditioning (VAC 34) producers follow the same approach as VAC 45. Two to four weeks before weaning/delivery, producers boost the 7-way clostridial, the 4-way killed viral, and administer a pasteurella vaccine. There are other considerations. For example, modified live virus vaccines are vastly superior in the protection they provide compared to “killed” vaccines; therefore, for weaned calves, a modified live viral must be used. Timing is critical to the success of the program (Caprock Industries, 2003).

Cattle may be assigned within the following parameters: 50%-100% British, 0%-50% Continental and 0%- 3/16 Brahman. A minimum cow herd size of 300 head is needed to supply approximately 120 head of one sex uniform calves. Producers need to follow guidelines of the Beef Quality Assurance program (BQA): “The mission of the beef quality assurance program is to maximize consumer confidence in and acceptance of beef by focusing attention on beef quality through the use of science, research and educational initiatives. More specifically, the objective of the Caprock industries BQA program is to ensure that all cattle are produced and maintained in a proper manner in order to provide a safe, high quality beef product to their consumers. The BQA program asks beef producers to follow the FDA/USDA/EPA guidelines for product use and to use common sense, reasonable management skills and accepted scientific knowledge to avoid product defects at the consumer level” (Caprock Industries, 2003).

Marketing and Production Characteristics

Caprock buys cattle at market prices. The better the quality of the cattle, the higher the price. Secondly, Caprock pays a premium (a payment based on performance), ranging from \$8 to \$45/head on the top performing one-third of cattle once cattle are slaughtered. Since these cattle have created significantly more value than the average

animal, Caprock allocates a percentage of the additional revenues associated with that increased performance back to the producer. “Feeding performance and harvest performance values are added together to determine total added value (TAV). The top 1/3 TAV for that location that month will become eligible for value sharing dollars.” (Caprock Industries, 2003).

Caprock Cattle Feeders participates in branding programs, but the alliance itself is not focused on one brand; the brand programs are between Caprock and Excel (packer). There are different product lines for most of the cattle, depending upon characteristics of cattle. Product lines are either targeted to mainstream High Select/Low Choice retail programs (such as Cattleman’s Collection), or Premium Choice programs (such as Sterling Silver and Certified Angus Beef).

In order to procure inputs, there are associations with seedstock producers. Caprock has no ownership of those genetics; it is just allied with the seedstock businesses. This is a mutually beneficial arrangement where Caprock has data and knowledge of the seedstock business’s genetics based on feeding their cattle. Caprock knows which seedstocks yield better calves, so they can recommend it to the Alliance members. In this way, Caprock sends customers to those seedstock suppliers; in turn, cattle are produced with those genetics that are eventually sold to Caprock. No inputs are purchased through the Alliance.

Annually, the Alliance feeds 60,000 cattle. There is no requirement established for a uniform weight on calves purchased by Caprock; there is a allowable variation of about 250 lbs from the heaviest to the lightest calves per purchase group. Caprock aims to buy steers from 600 to 850 lbs and heifers from 600 to 750 lbs. Steers are marketed from

1,250 lbs to 1,350 lbs and heifers from 1,100 lbs to 1,200 lbs. They are fed until they reach their “genetic potential”, depending upon the animal.

There is a sixty-day breeding season recommended for a desired product, depending upon the region; these range from 45 to 90 days. There are some management considerations for the breeding season, depending on how many animals per acre are managed. Caprock tries not to be overly prescriptive with respect to specific breeding seasons. This is basically dictated by location.

Castration is conducted at the ranches prior to selling to Caprock. Caprock does not specify the method for producers to use, though probably 90% are knife cut. The Alliance does not specify usage of implants. Calves are not required to be creep fed, but producers reporting it as a management practice have generally had positive results with cattle. Most of the results shown in the data have been favorable for the use of creep feeding. No particular grazing system is required. This depends mostly on the producer’s geographic location.

There is no formal enforcement of management practices. Weaning and preconditioning programs are evaluated by the buyers and Mr. Brophy to ensure their proper administration. There are a large number of producers in the program, physically dispersed across different regions of the U.S., so it would be difficult to enforce or control specific production practices. Even with a large number of producers, records need to be kept very detailed, and feedlots need to know what has been applied to the cattle when purchasing them. Caprock dedicates considerable time to personal communication with producers to establish a clear verification of the management practices employed. In the feedlots, there is a computerized program (AS400) to collect

detailed information on daily feed consumption, veterinary treatments, daily gains, and feed conversion.

Economic Characteristics

Primary costs incurred in forming the Alliance included establishing tracking capability, referring to the set of producers and keeping track of their cattle. Also, the cost of planning the meeting to develop a suitable Alliance program was an initial cost.

There is no charge for the data provided to producers. Producers do not pay commission or contract costs. There are charges for collecting carcass data on individual animals, which is not provided by the Alliance. Caprock pays a contractor to collect the data, and charges \$2.50 per head if producers want individual data. About 20% of the producers request individual data. Group data are provided at no charge. Transportation to feedlots is paid by Caprock, so producers are able to eliminate these costs.

Producers in the Alliance do not pay membership fees. Producers sign an agreement for each transaction. It states producers' responsibilities and the type of data to be provided by Caprock.

The transaction is strictly a private treaty marketing practice. While producers know the cattle will perform better with the feedlot practices and the packing plant will pay more for higher quality, there is no formal mechanism for reducing price variability. The cattle enter into a system where they are analyzed and evaluated, so producers are able to improve their cattle operations based on data collected on past cattle. In this way, they increase quality and can increase prices over the long run. Producers are paid an agreed-upon negotiated price for their cattle when they deliver. After that, if it is earned, they are paid a "value sharing payment", purely based on performance. To determine if

the producers are eligible to receive value sharing dollars, the data on their cattle will be compared to the data on all cattle that closeout from a specific feeding location that month. The table below illustrates the value-sharing table that is used, with hypothetical TAV values:

TAV Position	% Shared	TAV \$/HD	\$/hd to Producer
Top 10%	40%	\$100	\$40
Top 20%	30%	\$75	\$22
Top 33%	20%	\$50	\$10

Caprock Industries, 2003

Performance and Management Background

The most formal communication to members is through monthly closeouts, a review of data among the buyers involved, producers and Mr. Brophy. Also, informal communication between the buyers and the producers, twice-a-year newsletters and the annual producer meetings are used for information flow. Producers meet in small groups, and Mr. Brophy meet with each group. They discuss current issues, how they are performing, how they need to perform, how to implement alternative management practices, and how they are doing relative to the Alliance target. Thus meetings are individualized.

For group data, members receive a feeding worksheet and a harvest worksheet showing their actual performance relative to an estimate made when the cattle were bought. Those estimates are based on historical performance, and are, thus, objective rather than subjective, based on pen in-weights and sex. Data account for performance factors (such as feeding performance), comparison of actual and estimated break-even prices, and the price received. Also, there is a group of characteristics that are measured in the plant. The three major carcass factors that are evaluated relate to quality grade,

cutability and fallouts (over/under weight carcasses, over fats, no-rolls, etc.). Producers are not able to access capital for improvement of operations through the Alliance.

Considering some advantages associated the organization, the Alliance provides direction as to how to best utilize resources, efficient flow of information from the feedlot to producers, a close relationship among the Alliance members, lower transaction costs to producers, information to help producers to become more profitable, data allowing producers to measure improvements in calf quality, and profit sharing.

Some disadvantages of the Alliance are that (1) producers are not comfortable trading under private treaty in some cases and (2) larger producers who want to participate as partners cannot do so since the feedlot does not work as a custom cattle feeder.

The management background of Mr. Ben Brophy is quite extensive. He was raised on a ranch in Arizona, and has been with Caprock working in the feedlot business for 10 years. He attended Texas Tech University and studied Animal Production with an emphasis in Meat Science and Muscle Biology. Within Caprock, he spent 2 years in a training program, then was cattle superintendent for over a year in a feedlot, supervisor of the cattle shipping, processing, cowboy and vet crew. After that, he was the Assistant Manager of Procurement for 7 years.

Mr. Brophy mentioned different key factors for success in alliance formation. Some of them are (1) have clear win-win situations, (2) collaborate with one another, (3) enforce the main goal in the vision statement, producing higher quality, (4) focus on delivering a better product, (5) establish good communication channels, (6) enforce the

quality of animal being produced, (7) try to eliminate the commodity orientation, and (8) buy based on quality, not on financial availability.

Beef Advantage Alliance

Interview conducted by Angel Bu, LSU MS candidate and Robert Boucher, in LaVergne, TN, on November 17, 2003

The following is a description of the information provided by Mr. Keith Harrison.

Company Origin and General Characteristics

The Beef Advantage Alliance was formed by the Tennessee Farmers Cooperative the (Co-op), and Tennessee Livestock Producers (TLP), a division of Tennessee Farm Bureau Federation. Tennessee Livestock Producers provide expertise in cattle marketing, quality grading, transportation coordination, and genetics, working in conjunction with several marketing agencies across Tennessee and the states of Georgia and Kentucky. Tennessee Farmers Cooperative is a retail farm supply cooperative that sells inputs to producers and coordinates many of the activities of the Beef Advantage Alliance. The Alliance also uses resources from the University of Tennessee Agricultural Extension Service, the Tennessee Department of Agriculture, and the Tennessee Cattleman's Association. Other members of the Alliance include four animal health input firms: Boehringer Ingelheim, Fort Dodge, Pfizer and Merial. Their role is to make products available at local Co-op stores and provide manufacturer recommendations. Another member of the Alliance is the John Deere credit division, which provides financial support via loans to producers.

The Beef Advantage Alliance is focused on cow-calf producers from across Tennessee and surrounding states, working on preconditioning calves over a 45 day post-

weaning period. The larger production areas are Middle and East Tennessee, with a smaller portion in West Tennessee. Cow-calf producers are a vital part of the Alliance as they sell through the Beef Advantage program.

The Beef Advantage Alliance was formed in August 2001. The Alliance is run by the Co-op. The reason behind the formation of the Alliance began with the Co-op analyzing the livestock business in Tennessee. As an organization, the Co-op believed they needed to be more proactive towards assisting Tennessee farmers to be more competitive. They saw an opportunity in the beef cattle business, where infrastructure and experience already existed, but improvements could be made. The organization realized that the greatest impact they could have on the livestock industry was in the area of beef cattle science. The Alliance receives technical assistance from the University of Tennessee Vet School, faculty members from the Animal Science Department and faculty members from the Agricultural Economics Department. The Alliance presented its ideas to these experts, and obtained advice and recommendations to fit the program as a 45 day preconditioning plan. The Alliance compared its resulting program with most of the VAC 45 (Value Added Calf and Weaned for at least 45 days) programs already used. They added a nutritional component to the program to obtain better cattle performance and the implementation of animal health products.

There is no person associated with the Beef Advantage Alliance whose full time is committed to the Alliance. Alliance work is conducted using existing employees in the Co-op. Mr. Harrison, as marketing coordinator, is the person with the greatest responsibility for handling the Alliance. There are five field staff persons across Tennessee who work with the Co-op and coordinate five different regions. There are 120

Co-op retail stores across the state. At each store, there are at least two people whom producers can approach for information on issues regarding the Alliance. The organization distributes agricultural inputs in each of the 120 stores. They buy inputs in large quantities to provide producers more accessibility to the farm inputs they need.

The Alliance is considered a win-win situation for the Co-op and cattlemen. Tennessee Farmers Cooperative sells more of its products as more producers join the program. Producers are provided the alternative of joining the program to precondition calves rather than selling at weaning. They also have the possibility of receiving higher prices by grouping cattle with other producers involved for load lots of cattle at particular markets.

There are currently about 350 producers selling calves in the program. One of the major benefits to producers is to be able to group truckloads of preconditioned calves, 48-50 thousand lbs, to be sold at particular markets. Grouping with larger numbers of producers, they may benefit from higher prices than by selling on their own. The price received depends on the quality of cattle Beef Advantage assembles for the load and also ongoing market conditions.

The organization is a farm supply cooperative and, thus, has limited experience on how to group and sell cattle. This is why the Co-op has allied with Tennessee Livestock Producers and 14 other livestock marketing agencies. In 2003, at Cookeville, TN, the Alliance sold 1,100 head of cattle. On a typical sale day, about 40-50 farmers take their Alliance cattle to the sale barn. The stockyard personnel group them into uniform weights to yield as many 48-50 thousand lbs loads as can be presented for sale.

Meetings among Alliance members are informal, but members are in constant communication. The animal health input distributors work closely with the Co-op to provide products to the different Co-op stores. Mr. Jim Sherman, the Vice-President of the Co-op, Mr. John Houston, the Co-op Animal Health Department manager, and Mr. Keith Harrison, the Co-op Feed/Animal Health Division manager make most of the decisions regarding the Alliance, in consultation with other alliance partners.

As part of its financial support, the Alliance received a \$10,000 grant from the Tennessee Department of Agriculture and Agricultural Development Fund to advertise the Beef Advantage Alliance in different feedlots. They advertise in the *High Plains Journal*, *Kansas Stockman*, and *Texas Cattle Feeders Animal Publication*. They applied on a competitive basis to obtain the grant.

The Alliance is funded with the resources of the involved agencies, and from both the Co-op and TLP contributions. Funds are also available from a participation fee of \$1 per head paid by each producer.

Except for some primary requirements of all producer members, each producer makes his own production practice decisions. The primary requirements are divided into animal health and feeding programs:

a) Animal Health Program:

- * All animals must be vaccinated twice and retained a minimum of 45 days after weaning or receiving.
- * All producers or the administering veterinarian are BQA (Beef Quality Assurance) certified.
- * All animal health is administered according to BQA procedures and

animals are identified with special Beef Advantage tags.

- * Heifers are guaranteed to be open the day of sale by a consignor. Consignors should consult their veterinarian if they have any questions related to this issue.
- * Bull calves are castrated according to BQA procedures.
- * All animals must be dehorned.
- * All animals will receive the following vaccinations:
 - * IBR, BVD, PI3, BRSV (2 doses) (Modified Live-Second Dose)
 - * Clostridial (7-way) (2 doses)
 - * Haemophilus Somnus (2 doses)
 - * Pasteurella Bacterin-Toxoid (1 dose)
- * Vaccinations are to be given based on manufacturers' recommendations.
- * All animals are to be dewormed and subjected to external parasite control.

b) Feeding Program:

- * All animals must be "bunk broken" and fed a minimum of 45 days.
- * All animals must be fed a Co-op fortified complete beef feed or a corn based farmer blended feed utilizing Co-op 23% Corn Blender-R 80 (#94064) according to label directions.
- * Specific Co-op feeds recommended in the program are 13% Elite Starter, 13% Cattle Prep, Co-op 16% Natural Cattle Supplement, 14% Select Hi E or Co-op 23% Corn Blender-R 80.
- * Local Co-op Representatives specify rations for the receiving or weaning period, as well as the growing period.

* During the last 25 days prior to marketing, it is recommended that all animals are fed the appropriate Co-op feed containing an ionophore.

There is a bred heifer policy as part of requirements: if a heifer is bred at the time of sale, the producer owes the buyer \$50. Also, if a male calf still has one or two testicles, the producer owes the buyer \$50.

Producers must choose one of four animal health programs for the 45 days of the program. If a problem occurs, the Co-op would need to deal with only one company since the four programs are through different firms.

For producers to join the program, they can enroll at any of the 120 Co-op retail outlets. The enrollment form consists of the cattle owner's name, farm name, the Co-op field representative, number of tags requested, number of calves for enrollment, number of steers and heifers, birth dates of calves, description of calves, and weights at which they wean calves. Producers must agree to follow the guidelines and requirements of Beef Advantage, specified clearly on the back of the enrollment form. The requirements specify the feeding program and animal health program. Producers sign the form and send it to Beef Advantage. Beef Advantage, in turn, sends the producer a letter of acceptance into the program.

Animal Health record keeping forms are provided to producers. These forms ask producers to state the products applied, expiration dates, and how they are administered. These records go with cattle to the market. Field staff verify that requirements are practiced so that buyers have assurance of the product they are purchasing. Beef Quality Assurance requirements are policed through the local coops or field staff.

Marketing and Production Characteristics

Beef Advantage has been able to build a reputation among feedlot owners for better performing cattle. They have increased market opportunities for producers. Feedlots, order buyers, and dealers purchase cattle from the Alliance based on their program assurance. At the same time, a good reputation has been established among Tennessee cattle producers.

The Alliance will handle basically any animal produced as long as it is produced within the Alliance guidelines. The Alliance has been most successful selling breeds such as Angus, Charolais crosses, and Red crosses. These are more uniform groups and are what the market currently seems to prefer. English and Continental crosses have commanded higher prices. The Alliance has not created a branded product.

Individual cow-calf producers purchase production inputs. No input is procured through the Alliance itself. Every producer joining the Alliance is mandated to purchase feeding and animal health products through the Co-op. One of the Co-op's missions is to obtain the lowest input prices for farmers. Farmers benefit from discounts on large quantities being purchased by the Cooperative. There are, however, no reduced input costs for producers relative to the Co-op members who are not Alliance producers.

There is no formalized common labor force shared among members. The Alliance does not own land or cattle. Field staff persons at the retail stores help producers with their management practices by answering questions or recommending management strategies.

The Alliance encourages producers to take cattle to 500 to 600 lbs as a weaning weight, with no specific animal characteristics required by the Alliance. Producers have

been able to identify which animal characteristics command higher prices in the market and accordingly the pool of breeds marketed has narrowed. The numbers of animals handled through the Alliance since formation have been: a) year 1: 1,518 head, b) year 2: 7,684 head, c) year 3: (1st Quarter) 3,900 head. Thus, within two and one quarter years, approximately 13,000 preconditioned calves have been handled.

Beef Advantage attempts to provide producers with the proper incentives to make the best decisions for maximum profit. Some producers use a 365 day breeding season. However, the Alliance encourages no more than a 60 to 90 day calving season. Producers calve in both Fall and Spring. Alliance sales are focused in the Fall, but there are also sales in February. The use of implants is not required and it is not monitored by the Alliance.

There is a feeding regime, though this does not include creep feeding before weaning. Over a 45 day period, producers need to put as much weight on the animals as possible. It is expected that the cattle will gain approximately 2 to 3 pounds per day.

There is no specific requirement on grazing systems; this is up to the producers. Agronomy Specialists from the Co-op work with farmers to provide general recommendations. Special sales are scheduled at the markets for Beef Advantage cattle. There were 8 sales in year one, 12 in year two and 11 the first quarter of year three. There are also some private treaty sales that do not go through the organized sales at the markets.

Economic Characteristics

Beef Advantage has a U.S. patented trademark, registered with the state of Tennessee. Formation of the trademark required significant legal paper work, which was

a cost incurred in forming the Alliance. The marketing agencies the Alliance works with have standard commission fees that are charged to producers. No commission costs are reduced, as farmers pay on a per head basis, between \$10 and \$20 depending on the market. Farmers pay their own transportation costs. Membership is \$1 per head sold. Prices are based on the competitive bidding at the market; producers are not able to negotiate a fixed price ahead of time to reduce price uncertainty. According to Mr. Harrison, cattle prices received by Alliance members compared to the average market price in the state of Tennessee are generally higher. He states that, for the Cookeville, Tennessee Beef Advantage sale on September 12, 2003, the price has been over \$68/head, on average, above the average market price in Tennessee for steers. The total number of cattle sold to date is approximately 14,145 head.

Payment to producers is issued through the sale barn. To sort cattle, the sale barn uses ear tags or back tags.

Performance and Management Background

The publication, *The Cooperator*, is issued by the Co-op 11 times a year. Information included in the publication explains the program and pricing information.

Membership allows producers to qualify for John Deere Farm Plan Preferred Financing, allowing the farmer the opportunity to purchase inputs needed for the Beef Advantage Program for 60 days with no interest or payments. Each purchase needs to be made during the pre-conditioning period of Beef Advantage, in the amount of \$250 or more.

Advantages of the Alliance include: (1) producers are better able to realize the true value of the cattle. (2) Producers are able to increase the quality of cattle being

produced according to the feeding and animal health program. Finally, (3) this results in a better reputation for Tennessee cattle operations.

The management background of Mr. Keith Harrison includes extensive experience in the field. He earned a BS degree in Agricultural Business at the University of Tennessee and a MBA degree in Marketing at Middle Tennessee State University. He has 19 years of experience in the beef industry, working with the Tennessee Department of Agriculture in the marketing division after college. Recently, he became Marketing Manager with the Co-op, a position that he has held for three years. In his opinion, there are a number of things to consider in producing beef: a) consistency of production practices, b) genetic consistency, and c) marketing consistency. Beef Advantage currently addresses production and marketing. The next step for Beef Advantage will be to address genetics.

Piedmont Cattle Marketing Association

Interview conducted by Dr. Jeffrey Gillespie, in Five Points, AL, on November 24, 2003.

The following is a description of the information provided by Mr. Phil Slay.

Company Origin and General Characteristics

The Piedmont Cattle Marketing Association was formed in 1994 with 21 cow-calf producers. The alliance is involved in calf production, followed by pre-conditioning the calves over a 45 day period. Members of the Alliance initially gathered and set marketing guidelines for the sale of weaned calves. The Alliance is spread over six counties in East Alabama.

The Alliance was formed to help producers raise better quality animals that would command higher prices. The Alliance receives assistance in selling calves from the owner

of Roanoke Stockyard, Mr. Don Green, an auctioneer. He charges a commission for all animals sold and is in charge of truck loading and transportation. Mr. Green serves as a guarantor of the checks written by buyers for the Alliance cattle. He writes a check from his livestock company account to the Alliance within 2-3 days of the shipping, deducting 1.5% commission. If a check has insufficient funds, the problem is handled by Mr. Green and the buyers. For the Alliance, that is the most important service Mr. Green provides.

Through the first year, members of the Alliance earned valuable management experience. Since the formation of the Alliance, weaned Alliance calves have been given two shots, IBR-PVR3 and a blackleg vaccine. To attract buyers, they later required a pasturella shot, at a cost of over \$2 a head. This served to increase market value, based on a better health program.

In the first year, the Alliance advertised mostly crossbred calves, many with some Brahman-influence, but buyers requested different animal types. Today, since Angus-bred animals typically command higher prices in the market, producers are encouraged to use Angus-crossed animals. Color is very important as buyers currently pay more for black animals. The importance of hybrid vigor is also noted. The Alliance continues to sell a few Brahman influenced cattle (less than 1/8 blood), but would like to phase them out since they do not return as much. Most producers have switched to Angus bulls. Other breeds handled by Alliance members include Simmental and Charolais. One producer raises Gelbveih. Mr. Slay says that the process of genetic transformation has been a rather slow one. Almost every lot sold by the alliance in 2003 was 80% black, while other lots were 100% black.

Mr. Slay is the president of the Alliance, but the Alliance is run by all members. Mr. Slay keeps in close contact with all stakeholders. Producers work together to organize cattle operations. As well, producers may work together in loading and weaning, but there is no formalized means of working together. Mr. Slay has developed personal relationships with a number of buyers, so they call him to describe calves before the sale, and to sort to their specifications after the sale.

The Alliance is self-funded by a marketing fee; it does not receive financial support from either state or federal governments and receives no sponsorship from another institution except for a grant received to obtain electronic tags. (Producers pay \$2/hd for the Alabama Beef Connection to tag the calves with e-ID and to retrieve data after slaughter). The Alabama Cooperative Extension Service and the Auburn University School of Veterinary Medicine provide some technical support. Using funds raised through marketing fees, the Alliance bought a fax machine and some other office supplies as well as a set of portable scales for producers to facilitate their management. The larger producers have their own scales.

All Alliance members decide together how to advertise cattle. Some decisions are made by individual producers and others are made by Mr. Slay, who handles day-to-day Alliance decision making. Mr. Slay and two other appointed producers or extension personnel also decide which producers may enter the Alliance. For example, in one case, a person was interested in joining; however, his cattle health program was reviewed and did not fit that of the Alliance. Also, his calves were older than the Alliance calves. Thus, Mr. Slay and the other producers decided not to allow this producer to join.

There are some requirements for a new member joining the Alliance. The producer must:

- * Follow the health program.
- * Produce quality, uniform calves.
- * Have a minimum of 20 head (There are exceptions).
- * Be BQA certified.
- * Meet the approval of a committee including Mr. Slay, 2 extension agents and Mr. Jimmy Collins.

Meetings of Alliance members are held with health institutions such as Pfizer, Fort Dodge, and AgroLab to discuss health issues. Also, the Alliance is in contact with Auburn University faculty who come to meetings to discuss economic factors and veterinary issues. Dr. Walt Prevatt, an Auburn University Agricultural Economist, is involved in the sales program, and meets about three times per year with the Alliance. Before and after each sale, he discusses with Mr. Slay how the Alliance is doing, and where the Alliance can improve.

Marketing and Production Characteristics

The first year, Alliance calves averaged \$79.81/cwt for the 1,200 head of cattle sold. At other stockyards, the average price was \$78.00/cwt. This was the Alliance's first Thursday night sale (August, 1994), where 21 producers sold 1,205 head of calves; since that day, they have been doing it every year. That night, they had a number of "prestigious" buyers. The Alliance uses a conference call plus six private lines for the sale. The sale begins at 8 p.m. CT with Mr. Green providing a quick run-down of the

Alliance health program and its terms. Within 30 minutes, about 2,000 calves are sold.

The first five years, the Alliance used video auction to sell animals. Potential buyers also used to visit the Alliance, and it took Mr. Slay around 8 hours to show all the cattle to individuals or groups. In 1998-1999, the Alliance began videoing calves of all producers to be sent to a larger number of buyers. After a year of implementation, the Alliance concluded that the video system was not suitable. It cost between \$700 to \$1,000 dollars to video all animals, so they turned to internet marketing. Mr. Slay would get in touch with the buyers to describe the animals. It is noted that Mr. Slay must describe large numbers of cattle from different producers of the Alliance. Thus, he must know all producers' cattle well. He needs to be able to satisfy customers as well as producers and maintain a reputation for high quality cattle.

The average weaning weight of Alliance calves increased from 570 lbs in 1999 to 670 lbs in 2003. During 2003, Mr. Slay began taking pictures of individual cattle and secretary Jack Robertson placed them on the website. The advertisements were on the Website of the Nebraska Cattleman's Association. The exposure was greater and advertisement costs were lower than the costs associated with video auction. Buyers from Midwestern states became interested and the Alliance was able to obtain repeat buyers using the marketing strategy. The Alliance realized it needed to continue advertising to attract more buyers.

Sales are made one lot at a time; each producer constitutes a lot. The producer declares the animals he wants to sell; thus, a month prior to the sale, producers' names are placed in a hat and their sale position is determined among all producers in the Alliance. In 2003, there were 13 producers in sale positions. Buyers purchase directly

from producers. The Alliance requests that buyers extend a 24-hour notice before the calves are shipped. Without notice, it would be a producer's decision whether or not to sell. Some producers enter into retained ownership deals, an arrangement that is fine with the Alliance.

Suppose there were a buyer purchasing two lots from Alliance members. Assume one producer had 43,000 lbs to sell and another had 8,000 lbs. Since this load would be slightly over a standard truckload, the buyer would choose the animals from both Alliance producers on an individual calf basis, depending upon the animals he wanted. He would then send a truck on an agreed-upon date to the producer locations, to move the calves to a weigh station. In the beginning, producers assembled truckloads. A problem was that some calves were weaned at 45 days, others at 25, etc.

At the time of sale, the Alliance practices a sequenced procedure. The day the Alliance ships cattle, members weigh trucks empty on local certified scales, then move them to the farm. After loading the cattle, trucks are reweighed at those certified scales. The two weight tickets are collected and an Alabama Feeder Cattle Closeout Sheet is filled out. Loaded weight less empty weight gives gross weight. A 2% pencil shrink is then deducted. That net weight is divided by the number of head loaded (driver and farmer both count the number of head when loading) to obtain an average weight. This is compared to the agreed upon sale weight. Depending on whether or not the cattle are on a slide, the Alliance adjusts the price using a slide table. Net weight is then multiplied by price per pound, giving gross receipts, which is the amount paid to Mr. Green for livestock. A 1.5% commission is subtracted from that amount, yielding net receipts, the amount paid to Alliance members by Mr. Green. The Alliance considers the truck drivers,

their respective signatures, time and date of departure. There have been some cases where two trucks have left to a similar destination point and one has taken 14 hours and the other one has taken 29 hours. Calves under those conditions suffer significant weight loss.

In 2003, the Alliance moved 19 loads in one week. Mr. Slay goes to each loading and decides which animals to cut out if needed, so that deductions are not taken. All sorting is done at the Alliance member's location (usually farm).

There is an extensive buyer list, which has lengthened through the years, expanding Alliance marketing opportunities. Producers have increased cattle operation sizes since joining the Alliance. Mr. Slay, as one of the producers, started with 130 cows. Today, he runs 190 cows. Many of the other producers have also significantly increased their operation sizes, as marketing opportunities have expanded.

Traceability is an important issue for the Alliance. With the Alliance's marketing system, traceability is easy to implement relative to the sale barn method. Thus, producers are motivated to utilize improved management practices in their cattle operations. During 2003, the Alliance implemented voluntary use of electronic ear tags in the animals through the Alabama Beef Connection program, facilitating the process of carcass information being obtained from the slaughter plant. Some buyers did not want to keep up with ear tags and get carcass information. This turned into a disadvantage for the Alliance because the Alliance cattle could not be evaluated based on carcass performance given by the slaughter plant.

Except for some primary cattle health requirements for all producer members, each producer makes his own production practice decisions. Some specific requirements

to be followed are:

Vaccination requirements:

- * *Pasturella halmolytica*
- * IBR-P13
- * BVD
- * Blackleg
- * *Hemophilus sommus*
- * BRSV
- * Lepto

Each calf must be treated by the specified recommendations on the manufacturer product following Beef Quality Assurance requirements.

The Alliance requires a set breeding season for calves to be available for sale in August. The Alliance also has Fall calving, starting September 15 and lasting about 120 days. September to December is when 85% of the calves are born. The optimal weight is considered to be between 650-750 lbs. The Alliance has attempted to narrow the length of its calving season, and is moving toward greater uniformity in its bulls.

The use of implants is determined by each producer. Calves are not advertised according to use of implants. Deworming is recommended, but is not a required practice. Record keeping is taken into consideration. When a shot is administered or deworming is practiced, it is recorded for control. Creep feeding is not required or recommended; this is up to the producer. There is no particular grazing system required. All male calves must be knife castrated.

One of the most important requirements of Alliance members is weaning the calf

45 days before sale. When mixing animals, the Alliance advises producers to mix them 45 days before selling for health purposes. Buyers prefer either a 45-day weaned calf or a calf just weaned over a 21-day weaned calf. After the first shots and the stress associated with weaning, 21 days is a relatively short amount of time. To enforce guidelines, the Alliance requires producers to sign BQA documents. All producers are BQA-certified and most have been through the Master Cattleman Program.

Calves are fed with soy hull pellets and hay, sometimes with protein supplement. In the past, some producers fed broiler litter. This was lower cost, but less preferred by buyers. In one case, a buyer asked if producers were feeding broiler litter; the positive answer led the potential buyer not to purchase. Some feeds have been occasionally bought in bulk, depending upon the opportunities.

Economic Characteristics

According to Mr. Slay, Alliance members benefit mainly due to the low shrink incurred. The Alliance manages a 2% shrink, compared to a calf in a stockyard that will lose 10%. Alliance calves moving straight to a truck and later to the scale shrink 6-7%. The buyer is willing to absorb that percentage, because they know the quality of animal purchased through the Alliance and are aware that cattle will generally recover with two days of feeding, replacing the shrink. There have been cases where cattle have shrunk as much as 15%. In such cases, buyers become more concerned. The Alliance has agreed to meet buyers “half-way” in such instances, paying for a shrink of 7%.

There are no employees in the Alliance, only cattle producers. No person in the Alliance earns a salary. The Alliance manages a commission to be paid to the auctioneer. The Alliance charges a marketing fee of \$1.25/head. This covers advertising, the

telephone bill, and mileage for Mr. Slay, who is the only full time farmer committed to the Alliance. The fee provides for a toll-free telephone number to serve customers. There is an expense account to treat customers. The members hold regular meetings from May to November, on an as needed basis. They also communicate by letters, e-mail and telephone calls.

In cases where producers desire carcass information on their calves upon slaughter, the cost is \$2/head. The opportunity to obtain such information at this price was secured through a grant to the state extension service under the heading of the Alabama Beef Connection.

Performance and Management Background

Some producers have discontinued membership for a year and then re-joined. Others have been in the Alliance since its formation. Over the years, the Alliance has picked up some new producers. The number of producers can vary from year to year; in 2003, there were 17 producers. Among those producers were multiple small producers who raised only a few head of calves, so the Alliance actually managed more than 17 producers' animals. Mr. Slay encourages any producer to work in an Alliance. He sees great benefits.

Alliance members travel together to purchase bulls, with the objective of purchasing similar genetics. There has been some money saved in acquiring vaccines. The Alliance has sent out bids to different pharmaceutical companies to obtain lower prices on vaccines (Blackleg, Pasturella, IBR-P13). In these cases, all producers purchase from one company. Recently, the Alliance has not bid since one company has consistently offered the lowest price. This price is agreed upon by guaranteeing a certain

number of head per year.

The Alliance handled 1,975 calves in 2003. In 2003, the Alliance averaged 663 lbs/calf. By forming the Alliance, producers have been able to reduce commission costs to 1.5% via the auctioneer compared with 3.5% at the sale barn. Buyers are responsible for paying transportation costs and sometimes are charged with loading the calves.

Alliance members generally receive higher prices than non-Alliance members for similar quality animals, as buyers are more confident and know the types of calves they will purchase through the Alliance. Thus, they are willing to pay more. As part of Alliance membership, there is no reduction in price variability. However, according to Mr. Slay, the Alliance consistently receives \$6/cwt over the Alabama market price. Among the marketing practices used, the Alliance most frequently uses teleconferencing, an internet cattle marketing website and mail-outs to the buyers list.

Considering some of the advantages of the Alliance structure, the goal has been to discover where the problems are and how to get them solved at all levels in the production chain. Producers are able to obtain better prices and share information with other alliances.

Disadvantages in the structure include: (1) the Alliance would like to have greater knowledge on how to sort calves more easily to increase efficiency, and (2) because the Alliance has taken calves to a central location to sort them, some complications have arisen.

The management background of Mr. Phil Slay includes extensive experience in the field. He earned a BS degree in Animal Science at Auburn University. He has years of experience in the beef industry. Mr. Slay is a cattle producer. Personal experience with

the Livestock Judging team at Auburn improved his skills in cattle production and marketing. In his opinion, there are a number of things very important about effective marketing in the U.S. beef industry. He suggests that building good public relations between buyers and producers and understanding the industry very well are key components. One of the key components of the Alliance is a good working environment among producers, as well as trust among producers, and between the Alliance members and the buyers, many of whom rely on nothing but description to buy hundreds of thousands dollars worth of cattle. Mr. Slay mentioned that it is very important to learn by doing and obtain experience based on the work.

CHAPTER 4

HYPOTHESIS TESTING AND COMPARING AND CONTRASTING THE STRATEGIC ALLIANCES

Hypotheses were established according to literature related to the formation of strategic alliances and their potential benefits to the U.S. beef industry. The following hypotheses will be tested for rejection or failure to reject the null hypotheses. The hypotheses were formulated as:

1. H_0 : Strategic alliances do not serve to reduce any transaction costs.
 H_a : Strategic alliances serve to reduce some transaction costs.
2. H_0 : Strategic alliances do not serve to reduce price variability.
 H_a : Strategic alliances serve to reduce price variability.
3. H_0 : Strategic alliances do not serve to increase farmers' access to capital.
 H_a : Strategic alliances serve to increase farmers' access to capital.
4. H_0 : Strategic alliances do not serve to increase the flow of information along the supply chain.
 H_a : Strategic alliances serve to increase the flow of information along the supply chain.
5. H_0 : Strategic alliances do not serve to provide alternative market outlets for animals of specific traits.
 H_a : Strategic alliances serve to provide alternative market outlets for animals of specific traits.

Each hypothesis will be tested according to the data gathered from the interviews conducted, with representation from each of the strategic alliances.

1. H_0 : Strategic alliances do not serve to reduce any transaction costs.

H_a : Strategic alliances serve to reduce some transaction costs.

Based on the data collected for the six strategic alliances, the null hypothesis is rejected. Each interview conducted with the six strategic alliance administrators led to the conclusion that strategic alliances serve to reduce some transaction costs. The specific transaction costs reduced by the strategic alliances differed by strategic alliance.

Formation of strategic alliances allow producers of Vernon Beef Alliance to purchase inputs in bulk, allowing members to secure them at lower per unit prices (page 33). The transaction costs being reduced are negotiation costs; buying in bulk allows producers to reduce the number of purchases required to acquire certain inputs, reducing negotiation costs with input suppliers for the individual producers. In the cases of Beef Advantage, Caprock Cattle Feeders, B3R Country Meats and Gene Net, no inputs have been procured through the alliances. Producers are responsible for purchasing all necessary inputs. For the Piedmont Cattle Marketing Association, some feeds have been occasionally purchased in bulk, depending on opportunities; the most common practice for this alliance is to send out bids to different pharmaceutical companies to discover the lowest price (page 80).

Commission costs are reduced in all strategic alliances except for the Beef Advantage Alliance where the marketing agencies the Alliance works with have standard commission fees that are charged to producers (page 70). For the other strategic alliances, different situations are observed, all leading to the reduction of commission costs.

Producers with the Piedmont Cattle Marketing Association have been able to reduce commission costs from 3.5% at the sale barn to 1.5% (p. 77). A similar situation is observed with the Vernon Beef Alliance where commission costs have been reduced from 5% at the sale barn to 2% via video auction and even to 0% in cases where private treaty sale is performed (p. 33). With B3R Country Meats and Caprock Cattle Feeders, producers are not charged commission or contract fees to place cattle into the programs (pp. 49, 59).

Membership in Gene Net Alliance reduced fees related to commission; its mechanism is a flat \$3 fee per slaughter animal (p. 44). Not all producers are able to assemble large enough lots to be sent to a processing plant, and in some regions, producers are not able to locate a packer order buyer. Gene Net Alliance allows these producers to ship cattle directly to the feedlots allied with the Alliance, where order buyers regularly visit and purchase cattle, charging lower commission fees to these producers.

In the case of video auction, large numbers of cattle need to be assembled in order to perform this strategy. The Vernon Beef Alliance and Piedmont Cattle Marketing Association have used video auction, with the result being lower commission fees (pp 34, 75). These alliances have also used other marketing strategies that reduce commission fees. Vernon Beef Alliance uses private treaty sales, while Piedmont Cattle Marketing Association who uses internet cattle marketing. The consumer-based alliances obtain their cattle mainly either via private treaty or retained ownership.

A number of other transaction costs are reduced when the conventional auction is not used, such as shrinkage, insurance and feed associated with the auction. Piedmont

Cattle Marketing Association and Vernon Beef Alliance specifically mentioned some of these production and marketing costs (pp.33, 79). For Vernon Beef Alliance, the use of private treaty and video auction has reduced shrinkage significantly. The reduction of commission fees is related to the specific marketing strategy used by the alliance.

Information costs are incurred in searching for price and product information. Collection of product information is potentially costly, as one must determine the type of animal desired for production, and identify animal characteristics that will lead to the highest prices. Information costs also include the cost of identifying trading partners. Due to the level of communication achieved among members of the strategic alliances discussed in this analysis, the flow of information along the production chain allows producers to obtain more information on prices, desired traits of animals, and alternative market outlets. This information may serve to effectively reduce information acquisition transaction costs (compared with the cost that would be incurred by the non-alliance producer collecting all of his or her own information).

The three consumer-based strategic alliances, Gene Net, Caprock Cattle Feeders and B3R Country Meats, use grid formula to transfer information. These alliances issue payments to producers according to quality grade. Information is provided free of charge for Caprock Cattle Feeders members (p. 58) and B3R Country Meats members (p. 49). In the case of Gene Net Alliance, data is provided to producers at a lower cost compared with non-alliance producers (pp. 42, 43). The types of information transferred include carcass weight, quality grade, yield grade, marbling scores, rib eye area, fat thickness, and others.

Information costs are spread among members in the calf marketing alliances. Information on the types of animals demanded are shared among members of the alliance through both formal (newsletter and seminar) and informal (producers working together) means. For Vernon Beef Alliance, information on prices, inputs to be purchased, marketing options, operational requirements, desired animal characteristics and other types of information are passed among Alliance members. Some members subscribe to beef magazines to obtain information (p. 37). In the case of Beef Advantage Alliance, information is transferred from the local co-op stores to producers (pp. 63, 64). Members of Piedmont Cattle Marketing Association share information, obtaining it from different institutions (pp. 73, 79). For instance, programs are provided to producers by Auburn University faculty. Each of these calf-based Alliances provides for information transfer at lower cost than would be available to the typical non-alliance independent producer.

Monitoring (enforcement) is another transaction cost. It is noted that, traditionally, few monitoring costs have been incurred in the cattle industry. The calf producer has traditionally sold via the auction barn. Today, however, as processing plants have developed greater demand for specific animal types and greater traceability is expected to be required in the future, there is an increased need for monitoring to make certain that animals of the desired characteristics are being produced. For the consumer-based strategic alliances, Gene Net, Caprock Cattle Feeders and B3R Country Meats, monitoring is performed primarily using record keeping. In turn, grid information is used as a means of evaluation for certain parameters. Grid results provide incentives for producers to provide animals with the desired attributes. Mr. Brophy, with Caprock Cattle Feeders, states that there are large numbers of producers dispersed across the U.S.,

making enforcement rather difficult to perform (p. 68). For these three alliances, record keeping is a suitable way to monitor certain practices.

In the case of Vernon Beef Alliance, monitoring is conducted by producers who are in constant communication and work their cattle together. All producers are in charge of enforcing management practices to achieve determined standards (pp. 32, 33). With Beef Advantage Alliance, field staff and local coops verify that requirements are met. Record keeping forms are also provided to producers. Using this mechanism, the Alliance is able to control the specific practices required under the Alliance guidelines. Piedmont Cattle Marketing Alliance enforces guidelines with signed BQA documents and participation in the Master Cattleman Program. Mr. Slay, the Alliance leader, knows the producers and regularly visits with them; thus, he is able to identify problems if they exist.

Monitoring or enforcement costs need to be handled by the alliances in order to ensure consistent quality animals. There is insufficient evidence suggesting reduction of this transaction cost. In fact, as discussed before, these costs are likely to be greater for strategic alliances than for cow-calf producers who simply sell a “commodity” rather than a differentiated product through the sale barn. Strategic alliances generally attempt to produce more consistent and homogenous animals; meeting this goal generally results in the producer incurring increased monitoring costs. The most appropriate comparison of monitoring transaction costs would likely be between the independent non-alliance producers who attempt to market a differentiated calf versus the alliance producer marketing the same calf. While the independent producer is likely to incur greater costs assuring the buyer of compliance than the alliance producer of the same size that has the

assurances of the Alliance to verify compliance, this study was not designed to address this issue.

Calf-based programs handle smaller cattle operations, facilitating the monitoring of different production practices. For the larger consumer-based programs, monitoring is more costly due to the larger more disperse cattle operations involved.

Beef Quality Assurance certification is used to assure compliance by several Alliances, both consumer and calf based. Caprock Cattle Feeders, requires BQA guidelines (p. 56). For calf-based programs, Beef Advantage animals are BQA certified (p. 66), as are Piedmont Cattle Marketing Association animals (p. 74).

It is important to mention that some factors cannot be closely monitored by producers, such as carcass damage and grade information. In general, there is not enough evidence to conclude that monitoring costs are reduced by strategic alliance formation.

Hypothesis rejection leads to the conclusion that some transaction costs are reduced by the formation of strategic alliances in the U.S. beef industry. Throughout the discussion, we are able to detect notable differences in transaction costs between alliance versus non-alliance structures.

2. H_0 : Strategic alliances do not serve to reduce price variability.

H_a : Strategic alliances serve to reduce price variability.

Based on the data collected on the strategic alliances interviewed, the null hypothesis is not rejected. Results of each interview led to the conclusion that there is little basis to reject the null hypothesis. No verified price information to determine price variability is found in the data base. Because of a lack of evidence, the null hypothesis is not rejected.

There are few available formal mechanisms in the beef industry to reduce price variability. Though prices for all strategic alliances are reported by the interviewees to be higher than those received by non-alliance producers; price variability was not specifically addressed by any of the Alliances. In the case of Caprock Cattle Feeders, producers are paid on the actual value that has been created at the end of the production process (p. 57). If producers create more value, they receive higher prices.

B3R pays premiums for quality cattle (pp. 49, 50). According to Mr. Henderson, producers in the alliance receive higher prices for higher quality animals than do producers who produce the same quality animals and sell via other marketing outlets. The price variability issue was not specifically addressed by the Alliance.

For Vernon Beef Alliance and Beef Advantage Alliance, grouping cattle with other producers reportedly yielded higher prices than selling on their own (pp. 31, 64). These two strategic alliances worked to secure competitive market prices for quality animals, using marketing strategies such as auction barns with Beef Advantage, and internet marketing sales and private treaty sales with Vernon Beef Alliance.

Dr. Conway, with Gene Net Alliance, explains that producers are able to obtain higher prices by grouping larger numbers of cattle with those of other producers (p. 40). Dr. Conway explained that, through his grid formula, the Alliance has been able to negotiate a higher price for the cattle, due to the large number of cattle being managed. He considered that, in dealing with the packing plants, there is always price variability incurred.

All strategic alliance administrators agreed upon the increase in prices that accrued due to better management practices, the grouping of larger loads of cattle, and

the marketing of higher quality cattle. All of these variables serve to increase price, but none were constructed to specifically address price variability. In all cases, prices were based on a competitive bidding market; producers were not able to negotiate a fixed price or contract ahead of time to reduce price variability.

It is important to note that price variability might be related to an increasing level of quality achieved in beef production. It is possible that one would find lower price fluctuations as one moves up the production chain, reaching the consumer level, where quality performance is easier to measure than at the early stages of production. If this is the case, closer linkages with the consumer segment would likely reduce price variability. Price variability may also be reduced as one achieves higher quality. Strategic alliance formation seeks the improvement of quality along the production process, providing the possibility of price variability reduction. The present study lacks sufficient pricing data to provide a suitable test on the price variability issue. If higher quality results in lower price variability, then one would expect price variability to be reduced via strategic alliances..

It is noted that some of the alternative marketing agreements used by the alliances might serve to reduce price variability. Gillespie et al. (2004) discuss how the use of video auction and private treaty sales serve to reduce price variability. Thus, alliances that use these agreements may, in effect be reducing price variability. Caprock Cattle Feeders, Beef Advantage Alliance, and Vernon Beef Alliance, used these alternative marketing agreements for selling calves.

Though there is some evidence to suggest that alliance farmers would achieve lower price variability than non-alliance producers (i.e., through higher quality and use of

alternative market outlets), there is not enough evidence to suggest that price variability would differ between alliance and non-alliance members producing the same cattle.

3. H_0 : Strategic alliances do not serve to increase farmers' access to capital.

H_a : Strategic alliances serve to increase farmers' access to capital.

Based on the data collected on the strategic alliances interviewed, I fail to reject the null hypothesis stated for all but one of the alliances.

Members of different beef industry segments constitute the Beef Advantage Alliance. One of them is the John Deere credit division, which provides financial support via loans to producers (p. 71). Membership in the Beef Advantage Alliance allows producers to qualify for John Deere Farm Plan Preferred Financing. It is a credit line of 60 days with no interest or payments from which producers can buy production inputs. Additional funding for the Alliance was obtained from the Tennessee Department of Agriculture and Agricultural Development Fund for advertisement (page 65).

Though the other alliances do not have specific mechanisms to increase capital access, it is noted that strategic alliances may lead to a reduction in input costs. Vernon Beef Alliance and Piedmont Cattle Marketing Association purchase some inputs in bulk, reducing the price per unit relative to the price that would be incurred if purchased individually (pp. 34, 80). Thus, capital costs may be reduced. Capital cost reductions would allow resources to be used for other aspects of the cattle operation. As for the consumer-based programs, there is no evidence from the interviews of increased access to capital by farmers.

The decisions of these alliances not to address the capital access issue could be due partially to the relatively low initial capital investment in buildings and equipment

for cow-calf production. Asset specificity, as discussed in Gillespie et al. (2000), is not as great in cow-calf production as in broiler or hog production. Thus, perhaps there is less demand by producers for vertically coordinating institutions to provide mechanisms for capital acquisition in the cow-calf sector.

4. H_0 : Strategic alliances do not serve to increase the flow of information along the supply chain.

H_a : Strategic alliances serve to increase the flow of information along the supply chain.

Based on the data collected, the null hypothesis is rejected. Each interview with the six strategic alliance administrators concluded that strategic alliances serve to increase the flow of information along the supply chain.

The consumer-based strategic alliances involved, Gene Net, Caprock Cattle Feeders and B3R Country Meats, manage information through grid reports. All three alliances discuss information with producers in order for them to make the respective changes in management practices, health and nutrition programs.

In the case of B3R Country Meats, the main benefit to cow-calf producers in becoming involved in the Alliance is that cattle are graded on a grid. The grid data is passed to producers (pp. 46, 48). The grid transfers information on quality measurements from the packing plant to Alliance producers. Producers who are part of the alliance are able to obtain more information on their cattle performance. The data is provided by the packing plant, allowing producers to increase performance for future operations. As a form of communication, regional meetings are conducted and producers are encouraged to visit the processing plant when their cattle are slaughtered. Cow-calf producer

members of the Alliance meet at least once a year. Also, newsletters are sent to members each year (p. 50). The newsletter transfers information on quality issues, Alliance performance and different improvements achieved in the cattle operation. The flow of information for Alliance members allows them to make more precise management decisions. It is observed that the flow of information is vertically structured in B3R Country Meats. Vertical coordination in the process of transferring information makes the Alliance structure more efficient in achieving consistency and product homogeneity.

Caprock Cattle Feeders transfers grid data from the packing plant to producers (p. 54). The grid transfers information on quality grade, cutability and fallouts. The Alliance conducts annual meetings with groups of producers; the major topics of discussion are concern with management practices, genetic recommendations, advising on improvements, cattle characteristics and, most important, quality issues (p. 60). Newsletters are published twice a year and verbal communication with producers takes place. Caprock Cattle Feeders also encourages producers to visit the feedlots and packing plant to observe cattle performance measurements. There is use of electronic communication and web sites to inform producers about updates in the Alliance. Flow of information is very personalized with producers in the Alliance, allowing a higher efficiency in management practices required to achieve desired animal characteristics to fulfill consumer preferences.

Gene Net Alliance uses a grid to evaluate cattle performance (pp. 42, 43). The grid provides quality measurements that, in turn, allow producers to adjust management practices to perform better. The Alliance does not hold meetings among members. Dr. Conway sends letters three times a year regarding issues facing the Alliance, such as

improvement on the grid structure and program performance. Advertising and the use of a web site is a way to transfer information for Gene Net Alliance.

For Beef Advantage Alliance, a calf-based alliance, the publication, *The Cooperator*, is issued by the Co-op 11 times a year. This publication transfers information on Alliance performance, information regarding Alliance members, and recent news in the cattle industry (pp. 70, 71). There is also personal communication through the retail store through field staff persons, who assist producers with different inquiries. The Beef Advantage Alliance has a considerable flow of information due to the different members participating in the Alliance program, with producers, marketing agencies and four animal health input firms (p. 61). Compared with the consumer based alliances, one observes a more horizontal flow of information. There is no feedback received on cattle quality evaluations.

Vernon Beef Alliance uses straight communication channels between members. Some members subscribe to magazines or are associated with the Louisiana Cattlemen's Association to collect information on prices, educational programs, and other types of information to be passed among members of the Alliance (p. 36). Producers work closely with one another, attend seminars together, and, thus, learn from one another. Vernon Beef Alliance appears to have the highest level of communication among members. The flow of information is increased by the close relationship established among alliance members. This smaller type of alliance allows producers to easily communicate directly with one another.

Piedmont Cattle Marketing Association members meet regularly from May to November. They also communicate by letters, e-mail and telephone calls. Meetings of the

Alliance are held with animal health institutions to address issues regarding animal health programs. Also, Auburn University faculty meet with Alliance members to discuss economic and veterinary issues (p. 80). The Piedmont Cattle Marketing Association can obtain carcass information at a cost of \$2/head, an equal cost for cow-calf producers at Gene Net who do not retain ownership (p. 73). In this Alliance, information is transferred mainly among members.

For the calf-based programs, the flow of information occurs at a more “horizontal” level. There is generally no feedback to determine how the cattle perform after they leave Alliance programs, with no grid information provided (except for Piedmont Cattle Marketing Association, where producers can pay for data). Even with these characteristics, the formation of strategic alliances allows producers to obtain more information than individual non-alliance cattle operations of similar size. The basic mechanism is through greater working relationships among producers which allow producers to be well-informed on recent news, product innovations, different important issues on the cattle industry, and enforcement of standards.

Overall, the increased flow of information via strategic alliances allows producers to become more informed of the animal types in greatest demand, and to change production strategies to increase farm revenue. For both alliance types, calf-based and commercial-based programs, transfer of information along the supply chain is enhanced by formation of strategic alliances in the U.S. beef industry. Interaction among industry participants allows the production chain to better respond to consumer preferences.

5. H_0 : Strategic alliances do not serve to provide alternative market outlets for animals of specific traits.

H_a: Strategic alliances serve to provide alternative market outlets for animals of specific traits.

Based on the data collected on the strategic alliances interviewed, the null hypothesis is rejected. Each interview conducted with the six strategic alliance administrators concluded that strategic alliances serve to provide alternative market outlets for animals of specific traits. As alternative market outlets, we consider different marketing strategies to market cattle. We first discuss the specific traits desired and then the marketing strategies used to market these cattle.

Each of the strategic alliances handles different breeds. The Angus breed and its crosses are the most desired among the interviewed alliances. All strategic alliances interviewed (except for B3R Country Meats) stated preferences among animal breeds.

For B3R Country Meats, there is no specific breed required, but premiums are paid for Angus-bred animals (p. 48). Opportunities to market specific breeds with Gene Net began with the Angus breed, mainly because of its higher marbling. However, the Gene Net Alliance also handles Brangus and Charolais breeds (p. 41). Caprock Cattle Feeders uses parameters of 50-100% British breeds, 0-50% Continental breeds and, at most, 3/16 Brahman (p. 56). Vernon Beef Alliance advertises black breeds as the highest percentage and maintains a low percentage of red and “smutty” animals. Generally, the Alliance advertises calves as ½ Angus and ¼ Brahman (p. 31). Beef Advantage has been more successful in selling Angus, Charolais and Red crosses. For the Alliance, English and Continental cross animals have commanded higher prices (p. 68). Piedmont Cattle Marketing Association started advertising mostly crossbred calves, including Brahman. Based on market indicators pointing towards Angus-bred animals, producers were

encouraged to use them. Thus, the alliance's producers have switched to Angus bulls. Simmental and Charolais breeds are also managed by the Alliance (pp. 72, 73). As described above, most of the strategic alliances prefer Angus or Angus crosses, followed by Charolais, English and Continental breeds. Limited Brahman influence is allowed or encouraged, depending upon the alliance.

In addition to genetic traits, production practices are specified for all cattle. Gene Net does not specify any requirements on vaccinations or castration for alliance producers (p. 38). It recommends preconditioning.

Caprock Cattle Feeders provides guidelines for management practices; the alliance uses VAC 45 and preconditioning VAC 34 programs (p.54). Producers must follow BQA guidelines.

For B3R Country Meats, producers follow a VAC 45 program, and castration is performed before the bull calves weigh 300 lbs. Decisions on production practices are made by each cow-calf producer, except for the primary requirements (p. 47).

In the case of Beef Advantage Alliance, animal health is administered according to BQA procedures. Vernon Beef Alliance requires specific management practices such as vaccination, castration, implants, worming, and dehorning. Knife castration is practiced and creep feeding is encouraged. Piedmont Cattle Marketing Association manages a required set of vaccinations for producers and calves are BQA certified.

The use of specific traits has increased marketing alternatives for the strategic alliances. In the case of the consumer-based programs, producers joining strategic alliances are able to be included in a grid formula. The specific animal traits achieved by the alliances have helped develop quality reputations for Alliance cattle. This has led

Gene Net, to establish particular contracts with packing plants, opening an alternative market outlet for producers (p. 38).

In the case of B3R Country Meats, the packing plant works directly with the feedlots, which purchase cattle from a large number of cow-calf producers. The formation of this particular strategic alliance allows producers to join a program that transfers carcass information and provides better prices.

The formation of Vernon Beef Alliance has allowed producers to assemble truckloads of cattle which has given producers the private treaty option and the opportunity to sell cattle via video auction (p. 31). Individual small producers would have been unable to assemble enough calves to market through these outlets.

Beef Advantage Alliance's program assurance, based on its animal health and feeding programs has increased reputation among feedlots owners, leading to increased demand for Alliance cattle (p. 68).

Analyzing the null hypothesis, we discuss the case of Caprock Cattle Feeders, where Caprock owns the cattle and is part of a partnership with the packing plant. The Alliance provides cow-calf producers the option to sell their cattle and enter an alternative market rather than taking cattle to a public auction.

Implementation of strategic alliances as consumer-based programs allows producers to find alternative market outlets for animals of specific traits. Compared with calf-based programs, Vernon Beef Alliance, Beef Advantage and Piedmont Cattle Marketing Association use specific traits to gain reputation, assemble larger truckloads of cattle and use new marketing alternatives.

Comparing and Contrasting Strategic Alliances

General Characteristics

Most of the strategic alliances were able to either obtain lower prices for transportation, or producers were able to work together to assemble truckloads of cattle, reducing transportation costs. In the case of B3R Country Meats, producers pay the transportation cost to the feedlot, since producers retain ownership. The B3R Alliance has worked with producers in helping to arrange transportation such that producers could ship cattle together and, therefore, lower costs (page 47).

Producers at Beef Advantage (see page 70) and Gene Net (see page 43) pay their own transportation costs, but are able to assemble truckloads of cattle with other producers to reduce transportation costs.

For the Piedmont Cattle Marketing Association (page 80) and Vernon Beef Alliance (page 34), the buyers pay for transportation, so there is no transportation cost incurred by cow-calf producers. The case of Caprock Cattle Feeders is similar, where cow-calf producers do not pay transportation; Caprock pays for it (page 59).

Involvement in the cow-calf phase of each of the alliances has begun within the past ten years. Piedmont Cattle Marketing Association was formed in 1994 with 21 cow-calf producers involved in calf production and pre-conditioning (page 71). The B3R Country Meats processing plant was built in 1986. Association with feedlots was established in early 1990s, and in 1996, cow-calf producers became involved (page 46). Gene Net was established in 1998, involved in feeding, stocker production, cow-calf production and packing (page 39).

More recently, Vernon Beef Alliance was formed in 1999 with twenty-three

members, all cow-calf producers (page 31). Caprock Cattle Feeders is a division of Cargill, Inc., formed with Caprock feedlots and cow-calf producers in 2000 (page 53). Finally, Beef Advantage Alliance, formed in 2001, is involved in calf production (page 63). The use of beef strategic alliance is a relatively recent development, partially, the result of strategic alliances attempts to compete with other meat industries.

No employees are hired specifically to manage most of the alliances. Vernon Beef Alliance, Beef Advantage Alliance, B3R Country Meats, Caprock Cattle Feeders and Piedmont Cattle Marketing Association do not pay a salary to any person in the Alliances. Gene Net (page 40) is the only alliance where salaries are paid directly through the Alliance.

The flow of information is well differentiated within both types of programs. Consumer-based programs are more vertically coordinated in transferring information, where as calf-based programs transfer information on a horizontal basis (pages 95-98).

Production Requirements and Size of Operations

A comparison between the strategic alliances may also be made in organizational and scale terms. Gene Net Alliance manages the largest quantity of cattle, accounting for 100,000 head a year by contract. Gene Net works with 140 feedlots and approximately 1,300 to 1,400 commercial cow-calf producers. The Alliance is involved in feeding, stocker production, cow-calf production and packing.

In comparison, Caprock Cattle Feeders operates with 60,000 head of cattle, 4 feedlots and approximately 225 producers from which Caprock buys cattle. Caprock has a list of quality control requirements in order for producers to enter into “sharing total added value” (pages 53 and 54). Caprock Cattle Feeders and Piedmont Cattle Marketing

Association follow the Beef Quality Assurance program (BQA) to enhance quality.

The Beef Advantage Alliance, Piedmont Cattle Marketing Association and Vernon Beef Alliance have considerable lists of requirements to be fulfilled by producers in order to participate in their programs. The B3R Country Meats operates with few requirements, as explained on page 47, but these are enforced in order for producers to perform in the Alliance. It is important to remember that B3R does not own the cattle, producers practice retained ownership through the entire cycle.

The Beef Advantage Alliance (pages 68 and 69) has managed approximately 13,000 calves in two and a quarter years of operation. This is considerably small compared to the Gene Net and Caprock Cattle Feeders Alliances. The Vernon Beef Alliance (page 34) has managed approximately 2,500 head in its five years of operation and Piedmont Cattle Marketing Association (page 80) has managed 1,975 head of cattle in the past year. The Alliance Yellow Pages reports that 33,000 head were managed by B3R Country Meats in 2003. See production characteristics in each strategic alliance transcript.

The larger strategic alliances obtain cattle from a number of different regions of the U.S. Smaller strategic alliances on the other hand, are focused on merging members' cattle to market larger truckloads. It is notable that no strategic alliance owns land or cattle as an asset of the Alliance. Caprock Cattle Feeders is the Alliance which owns infrastructure and cattle purchased from cow-calf producers (page 53). Thus, some of the strategic alliances have entered into vertical integration strategies comparable to the poultry or pork industries.

Phases of Production

Three of the alliances operate in the same phases of production. Beef Advantage Alliance, Vernon Beef Alliance and Piedmont Cattle Marketing Association are focused on cow-calf production with smaller quantities of cattle, perhaps due to their location in the Southeastern U.S. These three alliances differ considerably from Gene Net, Caprock Cattle Feeders and B3R Country Meats, which perform in different and later phases in the production cycle. All differ from B3R Country Meats, which is involved in branded production at the packing plant.

Though B3R did not reveal information on the number of head managed by year, its administrator stated that 150 cow-calf producers provided animals to the packing plant. Those producers were shipping cattle to two feedlots and feedlots were sending cattle to the processing plant, as explained on page 46. The larger alliances were Gene Net, Caprock Cattle Feeders and, according to the Alliance's Yellow Pages, B3R Country Meats. These three selected strategic Alliances are considered consumer-based programs, moving towards the consumer level.

Performance and Economic Characteristics

According to Mr. Brophy (see page 56), Caprock Cattle Feeders pays premiums ranging from \$8 to \$45/head on the top performing one-third of cattle once cattle are slaughtered. With Gene Net Alliance, producers are reported to earn \$30 to \$50 per animal more on the grid managed by the Alliance (page 40). According to Mr. Henderson, with B3R Country Meats, the average payment is about \$60 per head over the price that would be received for similar quality animals outside the Alliance, as described on page 49. For Beef Advantage Alliance (see page 70), on average, the price was

\$68/head above the average marketing price in Tennessee for steers in September, 2003. Vernon Beef Alliance and Piedmont Cattle Marketing Association did not specify average prices obtained. While each alliance reports higher prices for producer members, for study purposes, we can only conclude that, for a certain quality of cattle, producers are likely to receive premium prices. It is not, however, the objective of this study to compare the returns across different Alliances.

Beef Advantage Alliance (page 65) is self-funded by its members. This is similar to Caprock Cattle Feeders, where Caprock provides all support. For Gene Net and B3R Country Meats, there is no government support or support from other institutions. These alliances are self-funded. For Vernon Beef Alliance and the Piedmont Cattle Marketing Association, alliances are self-funded and collect marketing fees to cover operational expenses. See company origin and general characteristics sections for each strategic alliance transcript.

Gaining Alliance membership involves different procedures. Some Alliances require an agreement, such as the case of Caprock Cattle Feeders (page 59). The agreement establishes information on the type of cattle to be purchased, the conditions and Caprock's responsibilities. Beef Advantage (page 67) has forms to be filled out by the producer at Co-op stores. The remaining Alliances require producers to fulfill certain parameters in order for producers to join the alliance, but require no signed agreement or contract prior to sale.

It is important to contrast the effect of a pricing system between the calf-based program and consumer-based programs. Overall, consumer-based programs receive considerable better prices than calf-based programs. A reason behind the price difference

is acquired at the grid formula practice by the consumer-based programs.

Probably the two most important reasons that led to the formation of each of these strategic alliances included increasing the prices received by producers and improvement of animal quality to meet consumer demand.

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS, AND AREAS OF FURTHER RESEARCH

This study is directed towards the analysis of selected strategic alliances in the U.S. beef industry. The introductory chapter provides a brief overview of the beef industry according to its level of technology adoption, market share, industry segmentation and other issues being faced by the industry. It is important to note that the cattle business is the largest sector in U.S. agriculture.

In 1999, there were 800,000 cow-calf producers in the U.S. Approximately 90% of these had fewer than 100 cows. About 2,100 feedlots controlled 85% of the fed cattle. At the processing stage of the production cycle, there are four major packers purchasing 80% of the fed cattle. There are larger numbers of small producers in the primary segment of production in the beef industry than in any other segment. There have historically been disagreements among segments as to the validity of price signals paid to different participants along the production chain, from cow-calf producers to the packers. Cow-calf producers do not control price; they generally do not make economic profits (Boucher and Gillespie, 2004). Individual producers are highly affected by market conditions, so there is a perceived, if not real, need to establish a suitable solution to equilibrate the pricing system in the different stages of the production chain in the U.S. beef industry. Based on this, formation of strategic alliances would theoretically allow participating producers to increase returns. They would lead the beef industry to increase its market share and become more competitive by forming specific linkages with segments of production. They would also allow a constant flow of information among industry participants. Cost reductions due to increased efficiency would eventually lead

to lower prices for consumers. Strategic alliances allow the industry to become more coordinated and to provide consumers with a more consistent and higher quality product.

The influence of strategic alliances on the structure of the beef industry is according to the phase(s) or segments of production in which they are involved. The types of alliances considered for this study include commercial beef alliances, which coordinate different practices between the different segments of the beef industry. For a strategic alliance to be successful, the concept of integration and coordination needs to be completely understood by the people managing it.

This study describes several major problems faced by the beef industry. As mentioned above, greater consistency needs to evolve in the industry in order to meet consumer demand. It is important to analyze what the final consumer is expecting from a product and to determine a strategy to fulfill consumer preferences. Competitors such as the pork and broiler industries have practiced greater coordination along the production chain and have arguably been able to perform more efficiently than the beef industry. Communication channels in the beef industry need to increase transference of more precise information through every segment of the industry, allowing the industry to perform with greater efficiency. Strategic alliance formation may provide greater performance in the U.S. beef industry, leading to a greater market share and a greater level of competition.

Goals associated with the strategic alliances are expected to include increased profit, increased quality and consistency of beef products, verification of total quality assurance, enhancement of food safety and solutions to other beef industry problems.

This strategy can provide a framework for establishing better standards for animals and product homogeneity in the entire U.S. beef industry.

Formation of strategic alliances and participation from producers has a number of positive benefits to the U.S. beef industry. The need for more integration within the different segments in the industry should motivate industry participants to set specific guidelines on the organizational structure of these alliances in order to achieve higher performance.

Conclusions

Based on the hypotheses formulated in this study, specific conclusions were drawn from the personal interviews conducted. According to the findings, strategic alliances serve to reduce some transaction costs involved in the production and marketing of beef products. Some specific transaction costs that may be reduced include information, negotiation, and transportation costs. On the other hand, there was little evidence to suggest that monitoring costs are reduced.

There was no strong evidence to conclude that price variability is reduced with the formation of strategic alliances. The issue of price variability in the U.S. beef industry is a topic of discussion that is not specifically addressed by the strategic alliances studied. Perhaps a better avenue to deal with price variability will be the government subsidized livestock revenue insurance products that are currently being developed. It is, however, acknowledged that some of the markets used by the alliances, such as video auction and private treaty sales, may reduce price variability. These markets are, however, open to all producers whether or not they are involved in alliances.

On the issue of capital access for producers, according to the strategic alliances interviewed, strategic alliances are not generally set up to provide producers with greater access to capital for their cattle operations. All but one of the interviewed strategic alliances did not address access to capital. Findings allow us to conclude that (1) the flow of information along the supply chain and (2) alternative market outlets for animals of specific traits are increased by the formation of strategic alliances in the U.S. beef industry.

Strategic alliances are relatively new to the beef industry. All of the alliances interviewed are relatively new; none were involved in the cow-calf phase 10 years ago. Formation and operation of a strategic alliance involves significant “trial and error” until members are comfortable with a strategy. All of the strategic alliance representatives of indicated that they had experienced significant transitions early in their establishment. Alliances must be flexible and willing to change as needs change.

Another important point of the study is the performance issue of strategic alliances. Performance is determined according to the organizational structure of each strategic alliance, specifically from a managerial standpoint. Administrators indicate that the success achieved by their strategic alliances has been due to production of quality animals based on a set of detailed requirements established by the alliances. All but one of the alliances specified a set of management practices to be used by cow-calf producers. All rewarded producers for quality cattle.

Personal interviews provided information on managerial aspects of the strategic alliances and the level of experience of their leadership. Information on the administrators’ experience in the cattle business was collected, which allows for

establishment of the level of understanding of the cattle industry required to be an administrator of a strategic alliance. Administrators have experience in the cattle business. They suggest that cattle business experience, cattle knowledge and leadership skills are important factors in the success of a beef strategic alliance. The level of education pursued by the alliance administrators is quite extensive. The majority had Bachelors degrees, three had finished a graduate program, and one held a Ph.D. Each of the administrators also had extensive field experience with considerable involvement in the beef industry.

According to the alliance administrators, the main impetus for formation of the alliances was to obtain higher prices for producers for the cattle being sold. Involvement in the pricing system is advantageous for obtaining carcass information, providing feedback such that producers would consider improving management practices or adopting technology.

There is evidence to conclude that the level of prices received by alliance producers is higher than for most non-alliance members. This evidence is based on statements of the alliance administrators, as well as economic theory considerations. Prices are relatively higher for alliance members due partially to the ability to assemble larger truckloads of cattle. Some strategic alliances also offer certified cattle and cattle background information to assure a better quality of animal for buyers. This allows alliance producers to increase market value of their cattle. In some cases, alliances (e.g., Gene Net, B3R Country Meats and Caprock Cattle Feeders) provide grid information to cattle producers, allowing alliance producers to obtain premiums based on quality evaluations. Most non-alliance producers are less likely to have access to these programs.

The Angus breed and its crosses are the most highly demanded by strategic alliances. In addition, many alliances require specific management requirements on cattle. For example, Vernon Beef Alliance requires vaccination, knife castration, implants, worming and dehorning. Creep feeding is encouraged. These help to assure buyers of quality cattle and, at the same time, it builds a positive reputation for the Alliance. Piedmont Cattle Marketing Association requires a set of vaccinations and calves are BQA certified. Certification assures that quality cattle are sold by the Alliance. Gene Net does not specify any requirements on vaccinations or castration for alliance producers, but recommends preconditioning. Caprock Cattle Feeders provides guidelines for management practices; the alliance uses VAC 45 and preconditioning VAC 34 programs. Its producers must follow BQA guidelines. For B3R Country Meats, producers follow a VAC 45 program and castration is performed before the bull calves weigh 300 lbs. In the case of Beef Advantage Alliance, animal health is administered according to BQA procedures.

Satisfying everyone who seeks to join an alliance is a difficult task. If the reason for joining an alliance is to escape the price fluctuations and the variable selling prices in the calf and yearling market, the new alliance member is likely to be disappointed. These alliances are not set up to eliminate or reduce price risk. The primary reason for vertical alliances is to correct problems associated with the pricing system.

As a final conclusion, the use of the case study methodology to analyze the U.S. beef industry is suitable to achieve the objectives formulated. The case study methodology allowed for the conduct of personal interviews that facilitated the compilation and analysis of information from which to draw conclusions. Personal

interviews provided a continuous flow of interaction with the interviewees, which in turn gave flexibility for the strategic alliance administrators to better explain every response.

This type of methodology allows the interviewer to address the important qualitative information necessary to establish a meaningful analysis of the formation of strategic alliances in the U.S. beef industry. A limitation of the case study analysis is the difficulty of collecting data that can be used in statistical inference.

Recommendations

Strategic alliances along with associated implementation of technological advances will likely lead to more consistent and homogenous beef products that meet consumer demand. Streamlined coordination of the different segments of the production chain will allow for better control of quality standards along the production chain.

Transfer of more precise information among industry segments would enhance industry performance. This would lead the industry to provide the types and quality of animals demanded. This process leads to a specific set of management practices, alternative health programs, different nutrition requirements or the production of a breed that performs better in certain conditions.

Based on the findings, I encourage producers to form well-planned and organized strategic alliances, keeping in mind consumer preferences. It is important to understand that strategic alliance formation must be a win-win situation for all parties involved, collaborating to achieve a higher quality product using better communication channels, and avoiding the commodity orientation of the U.S. beef industry.

Forming strategic alliances is a procedure that requires preparation. An organizational plan needs to be developed, based on information collected from industry

needs. Solid goals must be established in developing an alliance. Allocation of resources, capital investment, human capital, market analysis, and other factors should be considered that allow a structure that performs and achieves its goals.

Implications for Future Research

Future research might be designed to utilize quantitative analysis, which complements and strongly links the theoretical procedures established in this study. The use of a quantitative analysis to obtain indicators on pricing, determination of costs and returns, and profit distributions throughout the segments of the beef industry would be useful. A larger number of observations from several regions would allow for a more precise analysis of the industry.

It is known that strategic alliances are not the same, and not all will be successful. Major determinants for alliance success would be the financial support, management structure, administrator and producer experience, marketing practices used, years of operation and the organizational issues considered in the strategic alliance formation.

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APPENDIX

APPENDIX 1

LETTER OF INTRODUCTION

September 17, 2003

Phil Slay
Piedmont Cattle Producers Association
26216 US Highway 431
Five Points, AL 36855

Dear Mr. Slay:

As a leader in a beef cattle strategic alliance, I am sure you are aware of the desire of many beef producers for alternative market outlets. In many cases, producers have formed strategic alliances to increase their competitiveness.

The Louisiana State University Department of Agricultural Economics and Agribusiness is conducting case studies of strategic alliances in the U.S. beef industry, and would like to request your participation in the study. The objectives of the study are to determine alternative structures of beef strategic alliances, to determine how producers have benefited from association with strategic alliances, and to determine how strategic alliances fit into an overall increase in beef industry competitiveness.

Your participation in this project would involve one interview with Mr. Angel Bu and Mr. Robert Boucher. Mr. Bu is a graduate student and Mr. Boucher is a Research Associate, both in the Department of Agricultural Economics and Agribusiness at LSU. In this interview, information would be collected regarding the structure of the strategic alliance with which you are associated. The estimated time required for the interview is approximately 2 to 3 hours, and would take place at a location that is most convenient for you. We would like to have the interviews completed during the month of October.

Since this study uses the case study methodology, results of this study cannot be held as confidential, and information gathered in the interviews will be used in publications. The results of the interview will be used by Mr. Bu in writing his M.S. thesis, in partial fulfillment of the requirements for his degree.

I will contact you via phone over the next couple of weeks to discuss your involvement in the study. We can then set up an appointment for the interview with Mr. Bu and Mr. Boucher. **We would very much appreciate your time and effort in participating in the study.** If you have any questions, please do not hesitate to contact me at (225) 578-2759. Thank you.

Sincerely,

Jeffrey M. Gillespie, Ph.D.
Associate Professor

APPENDIX 2

CONSENT LETTER

To: Piedmont Cattle Producers Association
From: Jeffrey M. Gillespie
Angel Bu
Agricultural Economics & Agribusiness
Date: June 8, 2004

The following contract is provided to inform you as to how data collected from your alliance will be used by the Department of Agricultural Economics & Agribusiness at Louisiana State University. We are conducting case study analyses of strategic alliances in the U.S. beef industry. By signing this contract, you are agreeing to allow the information gathered in this interview to be analyzed, published and presented in public outlets. Results will not be treated as confidential.

This study is an M.S. thesis project which requires a final document to be presented to the graduate student's committee in the Louisiana State University Department of Agricultural Economics & Agribusiness, and to further be published for the access of the community. Copies of the thesis will be kept in the Departmental office, library and the Graduate School at Louisiana State University, and will be accessible by the general public via the internet. Further presentation of papers at national conferences in the U.S. and publications in a variety of outlets will occur. Information collected from the interview can be used in publications and electronically handled via web sites. Information will be gathered through a questionnaire and will be processed according to established case study methods for further publication. The name of the strategic alliance will be used in publications to accompany results.

The signature below signifies that Piedmont Cattle Producers Association has read and understands the above contract given by the Department of Agricultural Economics & Agribusiness at Louisiana State University and agrees to abide by the specifications.

Signature _____

Date _____

APPENDIX 3
QUESTIONNAIRE

Strategic Alliances

General Characteristics

1. With whom is the alliance formed? (feedlot, packers, etc).
2. In what phase(s) is the alliance involved?
Feeding Stocker Cow/calf feed production feed milling Packing Others
3. Why was the strategic alliance formed?
4. When was the alliance formed?
5. Who runs the alliance?
6. How many employees are in the alliance, not including producers?
7. Does anyone associated with the alliance earn a salary?
8. What are the benefits of membership to alliance members?
9. How many members (producers) does the alliance have?
10. Do members have meetings? If so, how often?
11. Do members work together? If so, how?
12. How are decisions made in the alliance? (e.g., by leader, among members, etc.)
13. Is there sponsorship by the government or any other institution that helps to support the alliance?
14. Is there any technical support from outside sources that you receive for the alliance?
15. How is the alliance funded ?
16. What are the requirements for a new member joining the alliance?

Production Characteristics

17. Have members experienced expanded market opportunities since forming the alliance?
18. Have cattle operations in the alliance increased in size since joining the alliance?
19. Have alliance members had expanded opportunities to sell specific breeds? Explain.

20. Does the alliance provide a better market outlet for a specific breed? What type?
21. Has a specific brand been created out of the alliance? If so, what is the brand name and to whom is the brand targeted?
22. Are there any inputs that producers purchase through the alliance?
 Vaccines Fertilizer Wormers Others
23. How are these inputs procured? Explain.
24. Have producers been able to reduce input costs by joining the alliance?
 If so, which input costs and how?
25. In the alliance, is there a common labor force shared among members?
26. Does the alliance own land and/or cattle? _____(acres) _____(cattle)
27. Does the alliance rent or lease land?
28. How many animals were handled in 2002 through the alliance?
 _____ cows and calving heifers _____ stockers _____ bulls
 _____ replacement heifers _____ calves _____ feeders Others _____
29. Are there specific animal characteristics that the alliance requires? Explain.
 (Breeds, Mixes, Genetics, Color, etc)
30. Does the alliance require a uniform weight on calves? If so, what is the weight?
31. What is the average or range of weaning weight of calves handled by the alliance?
 _____ lbs/calf or Range _____ --- _____
32. Which vaccinations are required of cattle marketed through the alliance?
33. Does the alliance require a set breeding season?
34. Is there a specific calving season?
35. Does the alliance require castration of males prior to selling? Is there a specific castration method required?
36. Does the alliance require any implants?
37. Does the alliance require that calves are creep fed?
38. Is a particular grazing system required in the alliance cattle operations?
39. How does the alliance enforce these production requirements?
40. What kinds of records are kept for all cattle by the alliance?
 Vaccinations Breed Feed Other Inputs Others _____

Economic Characteristics

41. Was there any initial cost incurred in forming the alliance ?
42. Have producers been able to reduce the cost of obtaining price information by joining the alliance?
43. Have producers been able to reduce commission costs and costs of contracts by joining the alliance? Explain.
44. Have producers been able to reduce transportation cost by joining the alliance? Explain.
45. Is there a membership fee required from producers? If so, how much?
46. Are there any costs incurred by members that are not incurred by non-members?
47. Do producers in the alliance receive higher prices than producers who are not in the alliance for equal quality animals? If so, by how much? Why?
48. Are producers able to negotiate a fixed price for cattle prior to the sale?
49. Have producers reduced their price uncertainty by joining the alliance? How?
50. How do members receive their payments? (e.g., directly, bank account, etc.)
51. Which of the following marketing practices does the beef cattle alliance use?
 - a) auction barn
 - b) video auction
 - c) private treaty sales
 - d) internet cattle marketing
 - e) retained ownership
 - f) other _____

Industry Performance

52. Could you describe how information flows among stakeholders of the alliance? (e.g., members, non-members who have a stake, publications such as newsletters.)
53. What kind of information is passed along the production chain via the alliance?
54. Is the alliance associated with any beef cattle association? Which one(s)?
55. Has membership in the alliance provided additional opportunities for members to access capital for expansion or improvement of operations ?
56. What are the advantages and disadvantages you see in this strategic alliance?

Personal Information

57. Describe your background and professional experience

VITA

Angel Bu was born in Tegucigalpa, Honduras. He completed a high school degree at Centro Experimental, Tegucigalpa, in 1996. He completed his agronomist degree at Panamerican School of Agriculture, El Zamorano, Honduras, in 1999. He completed his undergraduate degree graduated in agribusiness, with a minor in business administration, from Louisiana State University in 2001.

In 2001, he enrolled for graduate studies in the Department of Agricultural Economics and Agribusiness at Louisiana State University. He received the Graduate Tuition Waiver Award and research assistantship in January 2002. Angel Bu is now a candidate for the degree of Master of Science in Agricultural Economics.