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CASE STUDIES OF STRATEGIC ALLIANCES IN SOUTHEASTERN BEEF PRODUCTION

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Abstract

Three calf marketing and three commercial beef carcass strategic alliances were examined via case study to determine alliance structure and whether each addressed risk, transaction costs, capital availability, and other concerns. The alliances reduced transaction costs and increased information flow among segments, but did not specifically address risk.

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Introduction

The U.S. beef industry has traditionally produced a product that could more accurately be described as a commodity than a branded, differentiated product. This situation is, however, slowly changing. The industry is evolving towards providing a broader range of products that meet consumers' diverse demands. Though the industry has made progress, it continues to face several concerns, including continued consumer perceptions that beef is unhealthy, industry segmentation, and a relatively slow rate of technology adoption among producers. Greater vertical and horizontal coordination in the industry could help to address some of these concerns.

One way in which coordination has increased in the beef industry is through strategic alliances. Sporleder 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.” Strategic alliances have been formed in the beef industry to coordinate activities among producers, as well as among other industry segments. No “typical” strategic alliance structure exists in the beef industry. Most involve cattle producers devising strategies through which they can collectively market cattle to the downstream segment (feedlot or packer, depending upon the alliance) at higher prices than they could receive outside the alliance. In some cases, alliances vertically coordinate more than two segments.

Yelich identified four types of strategic alliances in the beef industry: breed-associated, commercial beef carcass, natural/implant-free, and vertically-integrated cooperatives. We would add another type – calf marketing alliances. Breed-associated alliances, such as Certified Angus Beef, are generally endorsed by breed associations, typically specify breed, handle source-verified products, provide carcass feedback to producers, and market high-quality products.

The commercial beef carcass alliance is the most common type. These alliances emphasize relationships between industry segments. They provide performance feedback from the feedlot to the producer, carcass information from the processor to the cow-calf producer, and prices that more accurately reflect the “true” value of cattle (Yelich). Breed specifications differ among these alliances. Examples include the Gene Net Alliance and Caprock Cattle Feeders.

Natural/implant-free alliances produce and market antibiotic and growth promotant-free products. The method used to raise the animal is generally of greatest importance to these alliances. Most of these alliances provide feedlot and carcass data to producers (Yelich). Examples are Coleman Natural Beef and B3R Country Meats.

Vertically integrated alliances are generally regionally-based, and often involve producer-owned cooperatives. Their primary goals are full control of the product produced, and returning profits back to the members (Yelich). An example is Ranchers Renaissance Cooperative, Inc.

Calf marketing alliances generally involve cow-calf producers co-mingling their animals, thus increasing market volumes and prices. These alliances vary in calf production requirements. An example is the Piedmont Cattle Marketing Association.

The overall objective of this study is to compare the structures of six selected strategic alliances in the beef industry. Specifically, we identify beef alliances whose structures could be useful to Southeastern U.S. producers, identify differences in the organizations, and compare and contrast them. Strategic alliances selected for this study are also chosen according to their size, with the objective of obtaining information from small, medium, and large alliances.

The Economic Environment Currently Faced by the Beef Industry

The beef industry has lost substantial market share to poultry since the late 1970s. In 1985,

per-capita consumption of beef, pork, and chicken were 74.6, 47.7, and 36.1 pounds, respectively. By 2001, per-capita consumption for the three meats were 63.1, 46.9, and 52.4 pounds, respectively. The reduction in beef consumption relative to poultry is generally attributed to health concerns that arose with respect to beef in the 1970s, continued reductions in chicken prices, and poultry's increased responsiveness to consumer demands through new differentiated products. Lower chicken prices have evolved due to increased production efficiency and reduced marketing costs via vertical integration. Given industry differences, the poultry and similarly evolving pork industry models are unlikely to fit the beef industry, though increased coordination could contribute to a more efficient industry (Gillespie et al.).

Strategic alliances may help the entire beef industry to become more competitive. For packers to provide products that consistently meet consumer demand, they need to obtain consistent quality live inputs. To ensure procurement of the type of animal needed, the packer must improve communication with the feedlot and pay prices based on desired specifications. With premium prices being paid for quality fed animals, feedlots could pay premium prices for top quality calves, thus aiding the producer (Gillespie and Schupp).

Benefits of strategic alliances to cow-calf producers may include linkages with the processing segment, new markets for calves, higher calf prices, and greater access to information that would help producers to make decisions that increase profit. Some existing alliances require specific management practices, including health programs, feeding programs, use of particular feedlots and/or packers, quality assurance programs, growth implant programs, and antibiotic use restrictions (Ward and Estrada).

Other advantages that may be associated with vertical or horizontal coordination via a strategic

alliance include the following. (1) Risk reduction may result from coordination. Reimund, Martin and Moore discuss the evolution of contracting, a type of strategic alliance, as resulting from increased risk. Martin shows that contracts in the hog industry result in price risk reduction. (2) Transaction cost reduction may result from coordination, as discussed by Williamson. Hobbs identifies information, negotiation, and monitoring costs as important transaction costs in the beef industry that may be reduced via alternative marketing strategies. (3) Reduced capital requirements or increased access to capital for enterprise expansion may result from coordination. Barry, Sonka and Lajili discuss this with respect to contracting.

A disadvantage of some alliances for producers may be reduced autonomy, or reduced ability to have complete control over all decisions made in their operations. The level of autonomy retained by alliance producers varies greatly by alliance, from almost complete control of management decisions by the cow-calf producer to greater control by another segment. Alliances under producer control offer producers increased market access. The producer must consider how an alliance will affect autonomy and bargaining power, and whether the marginal benefits outweigh the marginal costs.

Methods

Case study analysis of each of six selected strategic alliances is conducted. Case studies are particularly useful when there are relatively few firms to be examined, disallowing statistical inference. For the present study, a multiple case study design using both descriptive and exploratory techniques is used (Yin). Personal interviews are used to collect information on each strategic alliance. Questions addressed in the interviews deal with the alliance's production, economic, performance, and marketing characteristics. Following recommendations by Yin, a case study database is developed to ensure data credibility and reliability.

The six strategic alliances interviewed in this study were chosen based on their location in the Southeastern or Southern Plains U.S. and their acceptance of *Bos taurus* genetics. The commercial beef carcass alliances selected were: (1) Gene Net Alliance, Hays, Kansas; (2) Caprock Cattle Feeders, Amarillo, Texas; and (3) B3R Country Meats, Childress, Texas (also a natural/implant-free alliance). Calf marketing alliances were: (1) Vernon Beef Alliance, Leesville, Louisiana; (2) Piedmont Cattle Producers Association, Five Points, Alabama; and (3) Beef Advantage Alliance, LaVergne, Tennessee.

A survey was designed to address specific concerns about each alliance, addressing the following but not limited to: transaction costs, price variability, access to capital, information flow, and availability of alternative markets for animals of specific characteristics. Personal interviews were conducted with administrators of each strategic alliance. Interviews were conducted at each strategic alliance headquarters by administering the questionnaire, tape recording interviews, and taking notes. A consent form explaining the purpose of the survey and the possibility of publishing results of the interview was signed by each administrator.

After conducting each interview, information was compiled and written as a transcript. Post-interview communication with the strategic alliance administrators was established to clarify any questions. Administrators then read the transcripts and validated the content.

Descriptions of Strategic Alliances

The following information was collected from interviews with the six strategic alliance administrators. The first three alliances discussed are calf marketing alliances, while the second three are commercial beef carcass alliances. The structures of each of the alliances are shown in Figures 1 and 2, which provide flow charts illustrating the market relationships among segments and cow-calf

producers in each alliance. These flow charts identify the linkages among entities as (1) vertical integration, which is the linkage of up and downstream firms through ownership in a single firm, (2) vertical coordination, which is the linkage of up and downstream firms into a single entity, (3) horizontal integration and coordination, analogs to (1) and (2), except among entities at the same level, and (4) spot market.

Vernon Beef Alliance¹

Vernon Beef Alliance was formed in 1999 with 23 cow-calf producers. It allows producers to pool calves with those of other producers, thus horizontally coordinating as illustrated in Figure 1, such that they can sell in truck load lots to buyers. Thus, cattle are reportedly sold at higher prices and transaction costs are reduced relative to marketing via conventional auction. The Alliance has utilized both video auction and private treaty sales.

Producers use Angus bulls that are purchased together to increase calf uniformity. Mr. Cleve Weisgerber, the leader, decides which bulls are to be purchased. Bull numbers are then randomly drawn by members. Each producer pays the actual price of the drawn bull. Mr. Weisgerber asks that if one of the members present objects to a certain bull, to identify it so that it will be deleted from the order list. Thus, producers purchase bulls according to their consent. The Alliance generally advertises calves as $\frac{1}{2}$ Angus and $\frac{1}{4}$ Brahman.

Over 700 cows are dedicated to the Alliance. As of Fall, 2003, approximately 2,500 head had been sold over the previous five years. Producers raise calves to 400 to 750 lbs, to be shipped in August. The Alliance has five contracts for different weights, so any calf fits into a load. The June calf weight determines the load in which it will fit when marketed in August.

A required breeding season (March 15 to June 15) has allowed the Alliance to improve

marketing, due to market indicators on specific selling months and synchronization. Some production practices are required of Alliance members: vaccination, castration, implants, worming and dehorning, details of which may be found in Bu. The Alliance holds workshops so that producers learn how to work calves. Enforcement of practices is by internal, informal policing. Instead of one individual serving as “policeman”, all take responsibility since all producers within subgroups of seven to eight are present for working all subgroup calves. The Alliance has a tagging system that improves calf handling and record keeping.

Given reduced dependence on conventional auctions, producers have lowered the following transaction costs: commission, shrinkage, transportation costs, insurance costs, and other auction-specific costs. Transportation cost is paid by the buyer.

Using both video auction and private treaty marketing, producers solicit offers from buyers. The sale is via contract. Upon sale, the buyer writes a check directly to each producer. Alliance members have purchased inputs in bulk, including veterinary medical supplies, ryegrass seed, baler twine, and others. Bulk purchasing allows members to secure inputs at lower prices, though they are not required to purchase inputs via the Alliance.

The Alliance consists of a chairman, treasurer, and purchasing agent, all Alliance members. There are no Alliance employees; thus, no salaries are paid. Members meet bimonthly, and decisions are made in a democratic manner. Information is passed among Alliance members via working together and planned educational programs. For a producer to join the Alliance, at least 10 cows must be designated. A \$50 initial membership fee helps to cover operational expenses. These programs have resulted in increased use of management practices, resulting in higher quality animals that command higher prices.

Beef Advantage Alliance²

Beef Advantage Alliance was formed by the Tennessee Farmers Cooperative (Co-op) and Tennessee Livestock Producers (TLP), a division of the Tennessee Farm Bureau Federation. Co-op is a retail farm supply cooperative that sells inputs to producers and coordinates many of the activities of the Alliance. Other Alliance members include four animal health input firms and the John Deere credit division. The Alliance also uses resources from the University of Tennessee, the Tennessee Department of Agriculture, and the Tennessee Cattleman's Association.

Through the Alliance, cow-calf producers may precondition calves over a 45-day, post-weaning period, and sell through the Beef Advantage program. Cow-calf producers horizontally coordinate by agreeing to production parameters, and vertically coordinate with Co-op, the input supplier, and buyers via conventional auction, as illustrated in Figure 1.

The Alliance was formed in 2001 using existing Co-op employees. Mr. Keith Harrison, marketing coordinator, has the greatest responsibility for the Alliance. There are 120 Co-op retail stores across Tennessee that purchase inputs in bulk. At each store, there are at least two employees from whom producers may obtain Alliance information.

A benefit to producers is the ability to group truckloads of preconditioned calves for sale. Pooling quality calves reportedly yields higher prices than would be received by selling on their own. About 350 producers currently sell calves through the program. Since Co-op has limited experience on grouping and selling cattle, it is allied with TLP. On a typical sale day, 40 to 50 farmers transport Alliance cattle to the sale barn. Stockyard personnel group them into uniform weights to yield as many 48-50 thousand pound loads as can be presented for sale. The Alliance is funded with resources of the involved agencies, and from both Co-op and TLP contributions. Funds also come from a \$1 per head

fee, paid by each producer.

Primary requirements are divided into animal health and feeding programs. For the animal health program, (1) animals must be vaccinated twice and retained at least 45 days after weaning; (2) producers or the administering veterinarian are Beef Quality Assurance (BQA) certified; (3) animal health is administered according to BQA procedures and animals are identified with special Beef Advantage tags; (4) heifers are guaranteed to be open the day of sale; (5) bull calves are castrated according to BQA procedures; (6) animals must be dehorned; and (7) animals receive specific vaccinations, found in Bu. Vaccinations are to be given based on manufacturer recommendations, and animals are to be dewormed and subjected to external parasite control. For the feeding program: (1) animals must be “bunk broken” and fed a minimum of 45 days; (2) animals must be fed specified Co-op feeds; and (3) local Co-op representatives specify rations for the weaning and growing periods. Producers must choose one of four health programs for the 45 day program. Keeping animal health records is required of producers. On specified forms, producers must state the products applied, expiration dates, and how they are administered. These records go with the cattle when marketed.

Beef Advantage has built a reputation among feedlots for better performing cattle, increasing market opportunities. The Alliance handles any animal produced within its guidelines. Field staff persons help producers with management by answering questions or recommending strategies. Numbers of animals handled through the Alliance since formation have been: year 1: eight sales of 1,518 total head; year 2: 12 sales of 7,684 total head; and year 3: (1st Quarter) 11 sales of 3,900 total head. The Alliance encourages no more than a 60 to 90 day calving season. Alliance sales are focused in the Fall, but there are also sales in February. Special sales are scheduled at markets for Alliance cattle, though some private treaty sales are also made.

Beef Advantage has a U.S. patented trademark, registered with the state of Tennessee.

Marketing agencies with whom the Alliance works charge standard commission fees to producers. No commission costs are reduced, as farmers pay on a per head or per dollar value basis, depending on the market. Alliance membership is \$1 per head sold. According to Mr. Harrison, prices received by Alliance members are generally higher than the average Tennessee market price. Payment is issued through the sale barn. Membership allows producers to qualify for John Deere Farm Plan Preferred Financing, allowing the producer to purchase inputs needed during the pre-conditioning period for 60 days with no interest or payments.

Piedmont Cattle Marketing Association³

Piedmont Cattle Marketing Association was formed in 1994 with 21 cow-calf producers. The Alliance is involved in calf production, followed by 45-day pre-conditioning. The Alliance has members in six Alabama counties. The Alliance was formed to help producers raise better quality animals that would command higher prices. It receives marketing assistance from the owner of a local stockyard, henceforth called “auctioneer,” who is in charge of truck loading and transportation, and serves as a guarantor of checks written by buyers for Alliance cattle. As shown in Figure 1, producers horizontally coordinate to pool cattle, but the Alliance has also arranged for the receipt of carcass data for producers if they desire it, thus vertically coordinating.

The Alliance continues to sell some Brahman-influenced cattle (less than 1/8 Brahman), though it would like to eventually phase them out. Most producers have switched to Angus bulls. Almost every lot sold by the Alliance in 2003 was at least 80% black. Mr. Phil Slay, Alliance leader, handles day-to-day Alliance decision making and is in close contact with all stakeholders.

The Alliance is self-funded by a marketing fee. Auburn University personnel provide technical

support. Using funds raised from marketing fees, the Alliance has purchased office supplies and a set of portable scales for producers. For a person to join the Alliance, he or she must: (1) follow the health program; (2) produce quality, uniform calves; (3) have at least 20 head (there are exceptions); (4) be BQA certified; and (5) meet committee approval.

In August, 1994, the Alliance held its first Thursday night sale, where 21 producers sold calves. The 1,200 Alliance calves reportedly averaged higher prices than the average stockyard price. Since then, the marketing method has been used annually. It entails a conference call with six private lines with the auctioneer describing the health program and terms. Within 30 minutes, generally about 2,000 calves are sold. The Alliance uses the internet for extensive exposure with relatively low advertising costs. Sales are made one lot at a time, with each producer constituting a lot. One month prior to the sale, Alliance producer sale positions are randomly drawn. Buyers purchase directly from producers.

At time of sale, trucks are weighed on certified scales, cattle are loaded, and trucks are reweighed. A 2% pencil shrink is then deducted from the gross weight. Resulting net weight divided by number of head yields average weight, which is compared to the previously agreed-upon sale weight. If cattle are on a slide, price is adjusted accordingly. Net weight multiplied by price per pound yields gross receipts, paid to the auctioneer. Commission of 1.5% is subtracted, yielding net receipts, paid to producers. During 2003, the Alliance implemented voluntary use of electronic ear tags through the Alabama Beef Connection program, facilitating the process of carcass information being obtained from the slaughter plant, for a price of \$2 per head.

Except for primary cattle health requirements, found in Bu, producers make their own production decisions. Calves must be treated by the recommendations on any product following BQA requirements. A set breeding season is required for calves to be available for sale in August. All

medical and deworming treatments must be recorded. Male calves must be knife castrated. Calves must be weaned 45 days prior to sale. The Alliance requires producers to be BQA-certified and most have been through the state's Master Cattleman program.

According to Mr. Slay, Alliance members benefit primarily due to the low shrink incurred. With no Alliance employees, no salary is incurred. The Alliance charges a marketing fee of \$1.25/head. Members hold meetings on an as-needed basis. They also communicate by letters, e-mail and telephone. Alliance members travel together to purchase bulls, with the objective of purchasing similar genetics. The Alliance has requested bids from pharmaceutical companies to obtain lower prices, due to purchasing in bulk. Alliance producers have been able to reduce commission costs. Buyers are responsible for paying transportation costs. Mr. Slay states that Alliance members generally receive higher prices than non-Alliance producers for similar quality animals, due to buyer confidence of quality and consistency.

GeneNet Alliance⁴

GeneNet Beef Alliance was established in 1998, with Dr. Ken Conway as its head. The Alliance is an agreement with Swift and Co., a packer that operates three plants. The Alliance involves 140 feedlots in 10 states, approximately 1,300 to 1,400 commercial cow-calf producers from 25 states, and three packing plants. The Alliance coordinates cattle feeding, stocker production, cow-calf production, and beef packing, as shown in Figure 2. Dr. Conway's main objective is to obtain the best quality cattle to fill packer demands, and to negotiate higher prices for Alliance cattle. An exclusive grid is used for Alliance animals, designed for high quality cattle. The grid is considered capable of transferring incentives to producers to produce high quality cattle, so the Alliance avoids requiring specific production practices. The locked formula grid sends signals on how cattle perform on specific

traits. GeneNet keeps track of the data.

The grid was established as part of a contract between Dr. Conway and Swift and Co., to furnish 100,000 head of quality cattle a year. The Alliance was able to establish its own grid because Dr. Conway was able to guarantee high quality cattle in large volumes to the plants.

Some Alliance cow-calf producers retain ownership of animals to slaughter, though this is not required. These producers obtain all carcass data free of charge. Alternatively, feedlots purchase calves, carry them until slaughter, and then may provide the data to the cow-calf producers. Cow-calf producers who have not retained ownership must pay a per-head fee to receive data from the feedlots. The Alliance also obtains cattle through order buyers operating on video or conventional auctions. 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. Alliance members benefit from grid access and the receipt of carcass data. The feedlots attract the major packer buyers, so they are able to negotiate and receive higher prices.

Dr. Conway sends out three letters per year to producers explaining program performance and other Alliance issues. An office administrator who handles all of the carcass data and Dr. Conway are the only Alliance employees earning salaries. Alliance decisions are made by Dr. Conway. The Alliance is independent, with no governmental sponsorship. Members pay Alliance fees on a per-head basis, \$3 per slaughter animal. There are no member requirements, except that all cattle are sold under the grid.

Dr. Conway indicates that smaller producers have received higher prices for animals since joining the Alliance. The grid helps them to improve management practices and animal quality, and ultimately receive higher prices. Opportunities to market specific breeds through GeneNet began with

the Angus, because of greater assurance of obtaining higher marbling. Two other breeds are now handled and fulfill requirements for higher quality beef: Brangus and Charolais. Production and management practices are handled individually by producers. No inputs are procured by the Alliance, nor is any labor force formally shared among members. A total of 100,000 head of fat cattle were handled by the Alliance in 2002.

Producers complete a form for each animal to be sold, and send it to Dr. Conway. The form includes vaccinations, implants and any other medicine provided to the animal. Feedlots provide information on cost and weight gains of animals. The Alliance collects as much information as possible on the cattle, even when they are procured via conventional auction.

Fees for carcass data range from \$3 to \$9 per head, depending upon the packing plant and the type of data requested. Commission fees at conventional auctions or to order buyers are avoided via GeneNet. Trucking costs are incurred by producers, though Dr. Conway coordinates trucking among producers such that they can ship together, lowering transportation costs.

B3R Country Meats⁵

The B3R Country Meats Alliance was formed with a packing plant, two feedlots and 150 cow-calf producers. The feedlots ship cattle to B3R, a packer in Childress, Texas. Both feedlots are about 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. The Alliance was originally formed out of a family ranch. There was a perceived need to improve ranch production practices to increase beef quality consistency.

The 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 of the Alliance to cow-calf producers is that cattle are priced on a grid; they can receive higher prices for better quality. Grid data from B3R for each animal helps farmers in making production management decisions. Figure 2 shows the vertical integration of cow-calf producer through the feedlot phase via retained ownership, and the vertical integration of the feedlot with the packer. Because B3R produces a branded product, vertical coordination is also shown with the retailer.

The packing plant is the Alliance's only asset. There are 75 employees in the packing plant working for hourly wages. The Alliance does not receive government financial support and receives no sponsorship from another institution. Cow-calf producer members meet at least once a year. In 2003, the Alliance conducted regional meetings with members. Alliance producers are encouraged to visit the plant when their cattle are slaughtered, and check and discuss the data.

Producers transport their own animals to the feedlot and to the slaughter plant. Most are able to fill truckloads of cattle. However, B3R has worked with producers to help arrange transportation such that they could ship cattle together. As a retained ownership program, producers incur all costs until slaughter. Some production requirements must be met by producers. Cattle must: (1) never have been implanted, (2) never have been exposed to antibiotics, and (3) go through a Value Added Calf and Weaned for at least 45 days program (VAC 45). Specific vaccination requirements are found in Bu. Since natural beef is being sold, all vaccines / medicine applied must be recorded and provided. Records also account for management practices, genetics, and weaning weights. B3R works directly with retailers to market its product. The Alliance has created a branded, natural beef product.

B3R has worked with producers in educational programs, providing carcass information, advice on genetics, and site visits. B3R attempts to provide producers the incentives to make decisions

that maximize profit. The Alliance encourages members to utilize optimal nutrition, and encourages no more than a 60-day calving season.

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. Mr. Henderson states that Alliance producers receive higher cattle prices than those marketing similar quality cattle through other outlets. B3R sends all grid information to producers. Feedlots keep records of which producers are financing feed and which are paying on a monthly basis. Feedlots need profit sheets to determine payments to be made to producers.

Four to five newsletters are printed and sent to members each year. There is extensive verbal advising to producers. Information is also sent electronically to members via a website. This information is on individual animals, and animals are ranked from top to bottom.

Caprock Cattle Feeders⁶

The Caprock Sharing Total Added Value Beef Alliance is a division of Cargill, Inc., formed with Caprock Feedlots and cow-calf producers. Allied with Excel, it is a division of Cargill. It allows cattle producers to participate in the beef value creation process without retaining ownership. Caprock operates four feedlots and coordinates with cow-calf producers. Cattle are purchased from about 225 producers in 16 states. Its 2000 formation was to improve the quality of cattle in Caprock's feedlots and product quality at the Excel processing plant.

Caprock began by improving personnel skills needed by buyers for procuring cattle, and realized it needed to go the next step by providing feedback to cow-calf producers. A program was structured to keep detailed information on carcass quality, and to transfer feeding and packing plant performance data to cow-calf producers. The system encourages Alliance members to improve the

cattle they send to Caprock. Mr. Ben Brophy is the top administrator of the Alliance. Fieldmen (buyers), located throughout the U.S., deal directly with suppliers. The Alliance employs about 20 people, including buyers and administrators. Of the four feedlots, three are within 80 miles of Amarillo, TX, and one is in Western Kansas. Others involved in the Alliance include a Meat Scientist and cattle feeding specialists. The vertical integration of cattle buyers, feedlots, and packer through Cargill is illustrated in Figure 2, as well as the vertical coordination with cow-calf producers and the development of branded beef products.

The primary benefit to cow-calf producers is the receipt of data on their cattle. At purchase, Caprock enters an agreement with the producer that establishes how the cattle will be evaluated. The main mode of communication between the Alliance and its members is through the buyers. The Alliance publishes newsletters and Caprock meets with groups of producers annually. Producers are encouraged to visit the feedlots, allowing them to compare their cattle with others. Packing plant trips are arranged for producers to see their cattle being graded. For every cattle closeout at the feedlots, there is a one-hour conference call between the buyer, producer, and Mr. Brophy. They interpret the data, informing producers of the strengths and weaknesses of the cattle, and provide benchmark comparisons to the rest of the cattle.

Most Alliance members ship over 300 calves annually, while the remainder ship as co-mingled groups from multiple smaller producers. Most management decision making is left to producers, though the Alliance advises and recommends management practices and provides guidelines on breeding. Caprock pays on the actual value that has been created; producers who create more value receive higher prices. The number of cattle sold must fit the established pen size: 120, requiring a minimum cow herd size of approximately 300 head to supply two pens of one-sex uniform calves. All weaned calves

follow a VAC 45 program or a preconditioning (VAC 34) program. Cattle may be within the following parameters: \$50% British, #50% Continental, and #3/16 Brahman. Producers must follow BQA guidelines.

Caprock buys cattle at live market prices. Then, it pays premiums on the top performing 1/3 of cattle upon slaughter. Since these cattle have created more value than average based on feeding and harvest performance, Caprock allocates a percentage of the additional revenues back to the producer. The total added value associated with better performance is shared at 40%, 30%, and 20% with producers for the top 10%, 20%, and 33% of cattle, respectively.

Caprock participates in branding programs, but the alliance is not focused on one brand. There are different product lines for cattle, depending upon their characteristics. They are targeted to mainstream High Select/Low Choice retail programs or Premium Choice programs. Annually, the Alliance feeds 60,000 cattle. Weaning and preconditioning programs are evaluated by the buyers and Mr. Brophy. Detailed records must be kept, and feedlots need to know what has been applied to cattle when purchasing them. Caprock dedicates considerable effort to communication with producers to establish clear verification of management practices.

With group data, members receive feeding and harvest worksheets showing actual performance relative to an estimate made when the cattle were bought. Characteristics measured in the plant relate to quality grade, cutability, and fallouts. There is no charge to producers for group data. Caprock charges producers \$2.50 per head for individual data. Transportation costs to the feedlots are paid by Caprock. Producers pay no commission or membership fees.

Comparing and Contrasting Strategic Alliance Structures

It is useful to compare and contrast successful strategic alliances to determine factors held in

common, as well as areas in which they differ. The six alliances are compared with respect to transaction costs, risk, capital availability, information flow, use of alternative market outlets, and production characteristics.

Transaction Costs

For each alliance, some transaction costs were reduced relative to the independent, conventional auction model. The word, “some” is included in the previous sentence since we have not considered all possible transaction costs associated with cattle marketing.

All three of the calf marketing alliances purchase inputs in bulk, allowing members to secure them at lower prices. Besides reducing total input costs through bulk purchasing, this may also serve to reduce negotiation costs since the number of transactions is decreased.

Commission fees were reduced or eliminated in all alliances except for Beef Advantage Alliance. For the other five, a flat per-animal fee was charged, a value which was less than the commission fees charged by most conventional auctions. Shrinkage, insurance and feed costs are also generally reduced by using many alternative markets (Gillespie, Basarir and Schupp).

Collection of product and price information can result in significant cost to cow-calf producers, as search is conducted to identify animal characteristics that lead to higher prices. The three commercial beef carcass alliances use grid formulae to transfer information. Specific data fees are not charged for Caprock Cattle Feeders and B3R Country Meats members. For Gene Net, data are provided at lower cost compared to non-alliance producers. Piedmont Cattle Marketing Alliance members may also obtain carcass information for a fee.

Information is transferred among the calf marketing alliance members through frequent communication via both formal (newsletter, seminar) and informal (producers working together) means.

Vernon Beef Alliance and Piedmont Cattle Marketing Association information flows horizontally among Alliance members, as well as vertically, through educational programs. Beef Advantage Alliance information is generally transferred from Co-op stores to producers.

Monitoring has traditionally been a relatively minor transaction cost in the cattle industry. As processors have increased demand for animals of specific types, increased monitoring needs have emerged to ensure quality and consistency. With the commercial beef carcass alliances, monitoring is conducted primarily via record keeping and communication. Grid pricing provides incentives for producers to provide animals with the desired attributes. With Vernon Beef Alliance, extensive monitoring is conducted by the members themselves who communicate and work together. Members enforce management practices to achieve standards, preventing free-riding. With Beef Advantage Alliance, field staff and local stores verify that requirements are met via record keeping. Beef Quality Assurance certification is used to assure compliance by Caprock Cattle Feeders, Beef Advantage Alliance, and Piedmont Cattle Marketing Association. The Piedmont Cattle Marketing Association administrator knows each producer and regularly visits their operations. Thus, he is able to identify and deal with questions or concerns that may arise. Insufficient data exists to analyze differences in monitoring costs via alliances. In fact, these costs may be greater for alliance producers who are producing more uniform products. The most appropriate comparison of these costs would be between independent producers marketing a differentiated calf versus the alliance producer marketing the same calf.

Transportation costs are transaction costs if they are specific to a market. Most of the alliances resulted in lower producer transportation costs. For B3R Country Meats, producers pay transportation costs to the feedlot since they retain ownership. The Alliance, however, has worked

with producers to arrange transportation such that they could ship together and, thus, reduce costs.

Beef Advantage Alliance and Gene Net Alliance producers pay their own transportation costs, but are also able to assemble truckloads of cattle with other producers. Piedmont Cattle Marketing Association and Vernon Beef Alliance buyers incur transportation costs. Caprock Cattle Feeders pays for calf transportation. Thus, transportation costs incurred by producers were eliminated or had the potential to be reduced in all alliances.

Risk

There is little evidence to suggest that price variability is significantly reduced via beef strategic alliances. While producers reportedly received higher calf prices, no price determination formulae were specifically designed to reduce price variability. Likewise, there were no specific mechanisms to reduce production variability. We recommend a more thorough analysis comparing the price variability associated with grid marketing and spot market prices to determine whether there are significant differences in variability between these strategies.

Some of the markets used by alliances, such as video auction and private treaty sales, may reduce price variability, as discussed by Lesser, and Gillespie, Basarir and Schupp. These markets are, however, open to all producers of considerable size whether or not they are involved in alliances. Many of the production practices required or encouraged by the alliances generally reduce production variability. Vaccinations, for instance, may be viewed as insurance against loss. Thus, while risk was not formally addressed by the alliances, it would likely be reduced to cow-calf producers via alternative marketing and the use of risk-reducing management practices.

Capital Availability for Producers

Beef Advantage Alliance provides short-term no-interest loans to producers via the John Deer

credit division. Though the other alliances do not have specific mechanisms to improve capital access, some may lead to input cost reduction. Vernon Beef Alliance and Piedmont Cattle Marketing Association purchase inputs in bulk, effectively reducing the cost per unit. Commercial beef carcass alliances did not appear to increase capital access among members.

Information Flow Among and Within Segments

The commercial beef carcass alliances provide information to members primarily via grid data. Each of these alliances meets with producers to discuss data and advise management. Each also publishes a newsletter. B3R Country Meats arranges for producer visits to the processing plant. Information flow in the consumer-based alliances tends to be vertical in nature, primarily from packer to cow-calf producer.

Vertical communication also takes place in the calf marketing alliances. For Beef Advantage Alliance, a publication is issued by Co-op, transferring information on Alliance performance, information regarding Alliance members, and cattle industry news. There is also personal communication with field staff personnel at the retail stores. Beef Advantage Alliance has considerable information flow due to the many institutions participating in the Alliance. Vernon Beef Alliance primarily uses communication channels among members. This Alliance appears to have the highest level of communication within the cow-calf segment.

Piedmont Cattle Marketing Association members meet regularly and communicate by letters, e-mail and telephone. Alliance meetings are held with animal health institutions and University faculty to address management issues. Alliance members may purchase carcass data.

For calf marketing relative to the commercial beef carcass alliances, the information flow is generally more horizontal – among cow-calf producers. There is less or no feedback determining how

cattle perform after they leave these Alliance programs. The mechanism is through working relationships among producers that encourage them to be well-informed on product innovations, standards, and industry issues.

Availability of Alternative Market Outlets for Animals of Specific Traits

An advantage of strategic alliances cited by alliance administrators is that members receive premium prices for animals of specific traits. Though we have not compared actual pricing among the alliances, each has requirements that are claimed to have led to greater returns. Each of the alliances handles different breeds. The Angus breed and its crosses are the most desired among the interviewed alliances. For B3R Country Meats, premiums are paid for Angus-bred animals, and opportunities to market specific breeds with Gene Net began with the Angus breed. Caprock Cattle Feeders accepts cattle falling within specific breed parameters. Vernon Beef Alliance advertises black breeds as the highest percentage. Beef Advantage has been more successful in selling Angus, Charolais and Red crosses, as these have commanded higher prices. Based on market indicators, Piedmont Cattle Producers Association members are encouraged to use Angus animals. Limited Brahman influence is allowed in most of the alliances.

In addition to genetic traits, production practices are specified for cattle in all but the Gene Net Alliance. VAC 45 preconditioning programs are utilized by Caprock Cattle Feeders, B3R Country Meats, and Beef Advantage Alliance. Most alliances require specific vaccination programs. Beef Quality Assurance guidelines are followed by Caprock Cattle Feeders, Beef Advantage Alliance, and Piedmont Cattle Marketing Alliance. Each alliance requires other specific production practices. Some purchase bulls together in order to increase calf consistency.

Markets used for animals have differed depending upon the alliance. Vernon Beef Alliance and

Piedmont Cattle Marketing Alliance have depended primarily on private treaty sales, with Piedmont utilizing the internet. Beef Advantage Alliance continues to depend primarily upon conventional auction sales, but attracts major buyers due to volume and animal quality. B3R, Caprock, and Gene Net depend upon private treaty purchasing, though B3R is also a retained ownership program. These results show that successful strategic alliances can be formed around a number of different marketing strategies.

Organizational Structure

Involvement in the cow-calf phase in each of the alliances began within the past ten years. Thus, the types of strategic alliances covered in this study are relatively new to the industry. No employees are specifically hired to manage five of the alliances. Gene Net Alliance and Caprock Cattle Feeders are the only alliances where salaries are paid through the alliances.

Of the alliances, Gene Net Alliance manages the largest quantity of cattle, accounting for 100,000 head a year by contract and working with approximately 1,300 to 1,400 commercial cow-calf producers. The Alliance is involved in cow-calf production, stocker production, feeding, and packing. In comparison, Caprock Cattle Feeders operates with 60,000 head and approximately 225 producers. Beef Advantage Alliance has managed approximately 13,000 calves in 2 ¼ years of operation, while Piedmont Cattle Marketing Association managed 1,975 head in 2003. This is relatively small compared to Gene Net and Caprock Cattle Feeders Alliances. The smallest Alliance, Vernon Beef Alliance, has managed approximately 2,500 head in its 5 years of operation. The Alliance Yellow Pages reports that 33,000 head were managed by B3R Country Meats in 2003. Thus, there is a wide range of size among alliances. Size impacts the scope of an alliance, both in phases of production and geographic influence. The larger strategic alliances obtain cattle from multiple regions of the U.S. Smaller strategic

alliances, on the other hand, are focused on pooling cattle over smaller regions to market truckloads.

A comparison of flow charts for each of the alliances shows major differences in coordination. The calf marketing alliances are focused on cow-calf production with smaller quantities of cattle, partially due to their location in the cow-calf producing Southeastern U.S. They emphasize horizontal coordination in producing large volumes of consistent quality calves for sale at premium prices. These three alliances differ considerably from the commercial beef carcass alliances, which have greater involvement with downstream segments. B3R Country Meats is, perhaps, the most extensively coordinated, with a branded product being produced.

The alliances are funded in different ways. Beef Advantage Alliance is self-funded by its members through Co-op. Caprock Cattle Feeders, Gene Net, and B3R Country Meats are self-funded, as well. For Vernon Beef Alliance and the Piedmont Cattle Marketing Association, alliances are self-funded and collect marketing fees to cover operational expenses.

Conclusions and Discussion

This study examines selected strategic alliances in the U.S. beef industry. According to the findings, strategic alliances serve to reduce some transaction costs involved in the production and marketing of beef products. Specific transaction costs that may be reduced include information, negotiation, and transportation costs. On the other hand, little evidence suggests that monitoring costs are reduced. Further research would need to be conducted on this issue.

Strong evidence did not exist to conclude that price variability is reduced via beef strategic alliances. Perhaps a better avenue to deal with price variability will be through government subsidized livestock revenue insurance products that are currently being developed. Some of the markets used by alliances, such as video auction and private treaty sales, may reduce price variability. These markets

are, however, open to all larger producers, regardless of their involvement in alliances. This would be an advantage of alliances for smaller producers.

Strategic alliances are not generally set up to provide producers with greater access to capital. Except for one alliance, none of the interviewed alliances addressed access to capital. Decisions of the alliances to not address capital access and risk could be due partially to the relatively low initial capital investment in buildings and equipment for cow-calf production. As discussed by Gillespie et al., asset specificity is not as great in cow-calf production as in broiler or hog production. There may be less demand among cow-calf producers than with other livestock enterprises for alliances that provide capital acquisition mechanisms and risk reduction.

Findings allow us to conclude that additional advantages of these alliances to cattle producers are: (1) the increased flow of information along the supply chain and (2) alternative market outlets for animals of specific traits.

All of the interviewed alliances are relatively new; none were involved in the cow-calf phase ten years ago. Discussion with administrators suggests that, in cases where a strategic alliance is run primarily by the members, formation and operation involves significant trial and error until members are comfortable with a strategy – such strategic alliances are likely to evolve as new strategies become available. Strategic alliance administrators indicated that they had experienced significant transitions early in their establishment. Alliances must be sufficiently flexible and open to change as needed.

Administrators indicate that the success achieved by their strategic alliances has been due in large part to production of quality animals based on sets 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.

Common reasons were cited for alliance formation with the cow-calf segment. The main impetus for formation was to obtain higher prices for cattle. Obtaining carcass information was advantageous for producers in some of the alliances, providing feedback such that they could reconsider management practices and, thus, increase profit.

Administrators conclude that the level of prices received by alliance producers is higher than for most non-alliance members. The higher prices are due partially to the ability to assemble larger truckloads of consistent quality cattle. In some cases, grid pricing allows producers to obtain quality premiums. 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 require specific management requirements on cattle such that they yield premiums.

Producers who would not want to join an alliance include those who (1) are in the cattle business primarily as a hobby and are uninterested in devoting significant management to their operations, (2) value their autonomy at a level such that they would resent other producers or members of other segments of the production chain enforcing alliance production standards, (3) are unwilling to abide by group marketing decisions, or (4) are concerned only with reducing risk or accessing capital for their operations. For those who are interested in forming a strategic alliance, the six alliances considered here provide different models that could be used in constructing an alliance that meets the needs of a group of producers.

A fair amount of discussion was presented at the beginning of the paper dealing with mechanisms through which the beef industry is changing to meet consumer needs. It is our opinion that the commercial beef carcass alliances are those that are most effectively meeting consumer needs throughout the system. Their vertical structures are specifically set up to transfer consumer preferences

throughout the system to the cow-calf producer, mainly via grid pricing. This does not mean that calf marketing alliances are not achieving or cannot achieve the same end. All three of the calf marketing alliances are striving to produce calves that command the highest prices by larger buyers – presumably the buyers who are interested in more than simply filling a truck to capacity. It is, however, important that the industry create mechanisms through which the correct signals are sent through the system to ensure that the calves that command the highest prices lead to the meat cuts most demanded by consumers. Otherwise, the success of alliances in improving the final consumer product will be limited.

There are a number of areas for future research on this topic. A few of these include, (1) What have been the characteristics of strategic alliances that have not been successful? (2) Why have members left alliances that are currently in operation? (3) Do demand-based alliances that involve the packer segment have a future for the southeastern cattle industry? Finally, (4) Are calf marketing alliances a step toward the commercial beef carcass type alliances?

Footnotes

1. Information on this alliance was collected by interview with Mr. Cleve Weisgerber in Leesville, Louisiana, on September 22, 2003.
2. Information on this alliance was collected by interview with Mr. Keith Harrison in LaVergne, Tennessee, on November 17, 2003.
3. Information on this alliance was collected by interview with Mr. Phil Slay in Five Points, Alabama, on November 24, 2003.
4. Information on this alliance was collected by interview with Dr. Ken Conway in Hays, Kansas, on October 6, 2003.
5. Information on this alliance was collected by interview with Mr. James Henderson in Childress,

Texas, on October 7, 2003

6. Information on this alliance was collected by interview with Mr. Ben Brophy in Amarillo, Texas, on October 7, 2003.

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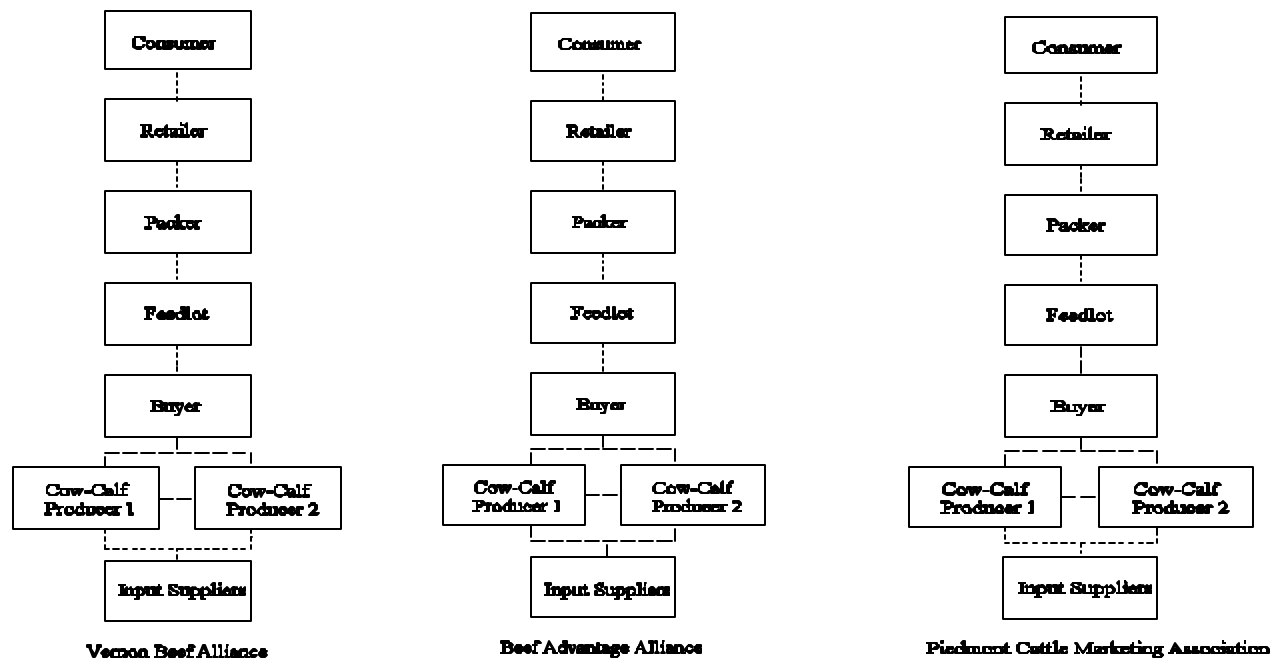


Figure 1. Organizational Charts of Calf Marketing Alliances.

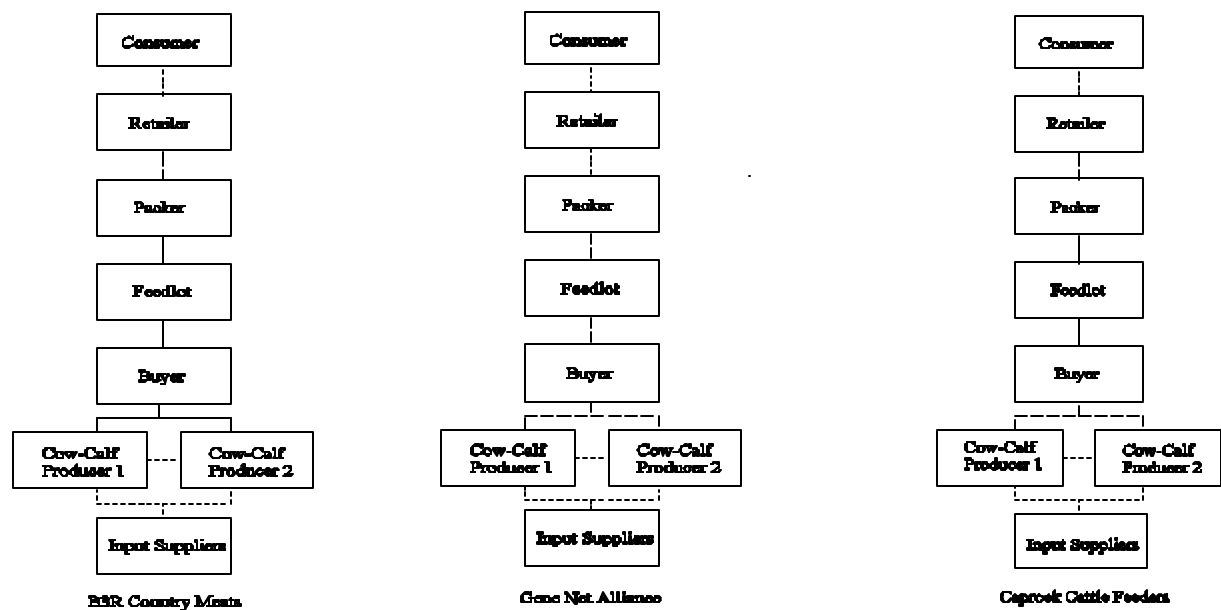


Figure 2. Organizational Charts of Commercial Beef Carcass Alliances.