

The Value of Plains Cotton Cooperative Association

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Abstract

The Value of Plains Cotton Cooperative Association is a teaching case that allows students to consider the cooperative business model and the impact of this unique form of organization in agriculture. The cooperative being examined is Plains Cotton Cooperative Association (PCCA), a highly successful, innovative, and dominant cotton cooperative.

The general question is whether the cooperative form of organization is viable and relevant in the face of intensifying economic competition. A cotton producer and long-time co-op member must decide if he will remain loyal to the cooperative in light of recent negative publicity and disappointing returns from its marketing operations.

The Value of Plains Cotton Cooperative Association

Introduction

John Williams was following his normal Saturday morning routine when he wheeled his Chevy Silverado into the gin yard. The large number of pickups still at the gin this late in the morning gave John an uneasy feeling. Like many of his cotton growing neighbors, and all of those at the gin that morning, John sold his cotton through the marketing pool of Plains Cotton Cooperative Association (PCCA).

John didn't even get to the coffee pot at the gin before he became engaged in a heated discussion about the cotton market in general and PCCA's cotton marketing in particular. An article in the local paper that morning had described PCCA's pool operations as "criminal" and "mismanaged." The article detailed how some growers who had left the pool the previous year had profited handsomely from that decision (see attached article). One grower had sold his cotton for 67¢ per pound while the pool had only paid 55¢ per pound. Like everyone else at the gin that morning, John calculated what an additional 12¢ per pound would have added to last year's bottom line. On the 2,500 bales John had sold, it would have added \$112,500 to net revenue.

As John headed back to his farm shop to work on the planter, he was thinking more about marketing his next crop than growing it. He had participated in PCCA's marketing pool each year in the knowledge that it had a history of outperforming yearly market averages. The pool let John concentrate on growing the crop and let the 'experts' worry about marketing it. But as the article had made all too clear, John could not ignore

the realities of the market or his financial circumstances. Last year was a marketing disaster for the pool and he, like many others, was disappointed in its returns.

The deadline to withdraw from the PCCA marketing pool for this year had passed a month ago and those who had not left the pool were obligated to add their cotton to the pool again this year. But because of the fervor over last year's poor performance, PCCA was offering to let disgruntled members leave even though the deadline had passed. John, who had earlier decided to stay in the marketing pool, now wondered if he should take this opportunity to get out and make his own marketing decisions.

John Williams does not take his decision to leave PCCA lightly. Reflecting on the history of PCCA and the importance of cotton production to the area economy, John knows the two go hand in hand. Cotton acres in Texas have actually declined since PCCA's founding in 1953, from over 10 million in 1953 to fewer than 6 million in 2004 (see figure 1). But average per acre yields have increased over the same time period from 232 pounds to 673 (see figure 2). These trends have resulted in the increasing value of upland cotton production in Texas from a \$500 million crop to over \$1.5 billion (see figure 3). John believes the support and marketing innovations of PCCA have made these gains in the cotton growing economy in this part of the Cotton Belt possible. He knows that his farming operation has benefited from not only the marketing options PCCA provides, but also from PCCA's role in improving the reputation and usability of short staple cotton that has increased the returns of all cotton growers in the region.

John's family has a long history of co-op support and membership. John, like many of his neighbors and fellow cotton growers, has been raised to believe in a core set of values that includes a sense of community, cooperation, equality, and opportunity. It

may be said that John was raised to 'believe' in the co-op and what it stands for. He recalls with fondness the stories his grandfather told of barn raisings and community threshing rings, but wonders if these ideals have a place on the farm of the future. John realizes that the challenges facing his farming operation in the 21st century are as great as those faced by the first generation of Williams' to grow cotton in Texas.

Williams' Family History

The Williams family came to Texas in 1927 from Hughes County, Oklahoma after the boll weevil had made cotton production there virtually impossible. As part of a general migration of farmers to northwest Texas between 1910 and 1930, these hard working and innovative immigrants replaced horse and mule power with tractors in the 1930s and dug irrigation wells in the 1940s. They began to organize cooperatives to process and market their crops in the late 1940s and early 1950s because they wanted a dependable market for their cotton. John is the fourth generation of his family to grow cotton in Lamb County, Texas. The cooperative gin his grandfather helped organize was the most productive gin in Texas in the 2002-2003 season, ginning 89,847 bales.

The farming operation John manages today bears little similarity to that of his forebears. John's great-grandfather raised a family on an eighth grade education and a farm of 120 acres. John holds a degree in agricultural economics from Texas Tech University and on 4,000 acres dotted with center pivot sprinklers raises cotton, corn, and wheat. The labor needs of the farm are now largely supplied by hired help and custom applicators. Days spent walking behind a plow have given way to precision agriculture guided and mapped by satellite.

John has continually sought ways to lower per unit production costs. He replaced open ditches and furrow irrigation with center pivot sprinkler irrigation systems and has since modified these systems with drag hoses and more efficient nozzles. He switched from conventional cropping techniques to minimum or no-till cropping systems to lower his operating costs as well as to conserve both soil and critical soil moisture. He adopted genetically modified cotton varieties since they reduce dependence on commercially applied pesticides and provide greater flexibility in his planting decisions.

John has noted the tremendous increase in the amount of information associated with crop production. He has access to production and marketing information 24-hours a day. This includes almost instantaneous contact with potential buyers and sellers of agricultural products. This allows him to make purchasing and pricing decisions over a broad range of activities, from hedging input costs to forward contracting production years in advance.

While John's farming operation has changed, his belief in being a steward of the land has remained the same. He remembers the Sunday afternoons his father and grandfather would spend walking the very cotton fields he was preparing to plant this spring. From such walks came the best farming advice John's father ever gave him, that "The best thing a farmer can put on his land is his shadow." And while it is hard for John to find the time to walk his fields, he shares many of the same concerns as those who farmed the land before him. He worries about insects and weeds, weather and markets. He realizes that some of these factors are beyond his control, but some are not.

With ever shrinking profit margins, he must get every penny he can from the crops he grows. That is why the article in the paper bothered him so much. Another year

like last year could be the difference in whether another generation of Williams will have cotton fields to walk. John worries about that most of all.

The History of Plains Cotton Cooperative Association

Texas is home to the largest contiguous cotton field in the world and annually produces more cotton than any other U.S. state. While cotton is the leading crop in Texas in terms of the value of production, cotton grown in this region is a short staple variety and was considered to be inferior to the longer staples grown in California and the southeastern United States. Short staple cotton from Texas was once considered good only for export or government storage and so was sold at tremendous discounts. This view has changed to a large extent as a result of the activities of Plains Cotton Cooperative Association.

Plains Cotton Cooperative Association (PCCA) was organized in 1953 to help farmers receive the best possible prices for their cotton. In the 1950s, prior to PCCA, marketing was difficult for growers in Texas. The cost of marketing cotton in Texas was twice as high as Georgia and almost 50% higher than Tennessee (Lichtenstein).

Additionally, cash markets were available only sporadically as the market went up or down. PCCA was formed with two primary goals defining its mission: 1) lower marketing costs and 2) have a cash market available every day.

Innovative initiatives by PCCA to accomplish these objectives and add value to its members' cotton have transformed the cotton industry not only in Texas, but across the U.S. cotton belt. These initiatives have taken four primary, but related, forms: marketing innovations, improvements in cotton classification, quality improvement, and a venture into textile manufacturing.

Marketing Innovations

The marketing initiatives of PCCA are not limited to the conventional programs found in other cotton growing regions of the United States. In addition to such highly successful mechanisms as pool selling, PCCA has revolutionized cotton marketing by developing electronic technology to bring buyers and sellers together in ways that improved communication, brought transparency to the transactions, and provide a means for producers to receive the most competitive price every day. The specific marketing innovations of PCCA include the establishment of a marketing pool, cotton warehousing, and electronic cotton trading (TELCOT).

Marketing Pool. Cotton growers and gin operators in Texas believed that their marketing costs could be lowered and returns increased if they adopted a cooperative selling program. The establishment of a marketing pool was the most prominent action by PCCA to add value to its members' cotton. The operating philosophy of the PCCA pool is that the best average price over time is achieved by selling a third of the estimated pool prior to harvest, a third during harvest, and a third following the completion of the harvest season (Johnson). By marketing throughout the year, the pool does not usually hit the high of the market or the low, but strives for a good, high average.

Additionally, PCCA has been successful in reducing the costs of marketing Texas cotton by spreading these costs over many more units. Marketing costs which have been reduced include storage and warehousing, insurance, receiving and outhandling charges, as well as sales support. USDA reports of selected marketing charges show that these expenses in Texas are now on a par with those of the Mid-South and the Southeast cotton growing regions as opposed to the substantially higher marketing costs in this area

referenced earlier (Glade, Johnson, and Meyer). PCCA has been instrumental in leveling this aspect of the competitive playing field for its member-producers compared to other cotton growing regions.

PCCA membership and pool participation has grown to include producers from all across the states of Texas and Oklahoma and now includes cotton growers in Kansas. PCCA currently markets over 50% of all cotton grown in these three states (Campbell). Grower members are commonly perpetual members of the pool. There is no charge or cost assessed to growers to participate in the pool but their participation decision is locked in except during a one month a year sign-in/sign-out period when they can exercise their option to participate or not. This month is April for the High Plains of Texas, Oklahoma, and Kansas producers and November for South Texas growers.

Once the cotton crop is harvested, ginned, and stored at a cooperative warehouse, the producer receives an initial advance price set by the cooperative's board of directors. This price has never been below the government loan rate (currently about 52¢/pound for base quality cotton). The cooperative then markets the cotton over the next twelve months. As the cotton in the pool is marketed, the board approves periodic progress payments to the participating members until all proceeds from sales are distributed.

Throughout its history, the marketing pool has achieved consistently higher prices compared to non-pool sales on a net cash basis and has steadily increased in volume of bales sold. Over the past seventeen years, the pool has averaged about 1.5¢ per pound higher than the average price for non-pool cotton and has exceeded the average price of cotton sold outside the pool in 13 of those years.

The marketing pool uses a combination of tools that growers could do on their own to market their cotton such as mill contracts, futures, put and call options, marketing loans, and straight cash sales, but these costs are spread over many more units in the pool. Additionally, by utilizing a professional sales staff, growers can focus on production decisions and worry less about marketing their crops and trying to outguess marketers throughout the world. PCCA's knowledge of cotton quality availability allows it to better serve the needs of other cotton customers while its large volume provides efficiencies in providing large quantities of cotton with particular milling characteristics (Lyford).

Table 1 presents recent sales volume and a financial summary of pool operations and margins for the past six crop years (fiscal year ending June 30). The wide fluctuations in net margins reflect the marketing difficulties this division has faced even in light of growing volume. Average returns per bale from the marketing pool in this time period are less than \$2. This translates into less than ½ cent per pound of cotton, much below its long-term average. The Williams' family farm has participated in the pool since its inception and has generally been pleased with its returns. However, recent lackluster performance is causing John, and many other growers, to rethink that commitment.

Warehousing. In 1963, PCCA opened two cotton storage facilities: one in Altus, Oklahoma and a second in Sweetwater, Texas. These originally compressed and stored bales delivered by area co-op gins to densities specified by cotton buyers. Now bale compression is done at the gin so that the warehouses are limited to storage and shipping. The two facilities handle a combined 750,000 bales annually and pay yearly dividends to PCCA members (Cockerell). The five-year average of this dividend is \$10.03 per bale.

Economies of scale in cotton warehousing and handling have been major contributors to PCCA's ability to cut the marketing costs of cotton in this area.

TELCOT. In the 1950s, cotton marketing was characterized by a few cotton buying agents who traveled to gins to review cotton available and negotiate a sale. Growers had little information as to what cotton may be worth a few days later or what prices were being offered even a few miles down the road. The only way to determine value was the price offered by the local buyer.

In 1975, PCCA created TELCOT, an electronic marketing system that brought the cotton market to farmers at their own gins. Through TELCOT, a grower could post his cotton for sale, have access to buyers, and receive competitive prices at the time he wished to sell his cotton. At the same time buyers could search for the specific types of cotton they needed in the amounts they need at the competitive prices. The cooperative gin carries out the sale on behalf of the member-grower and transfers the sales instructions to the warehouse so the bales can be located and shipped. PCCA was thus successful in its second founding objective: to have a cotton market available every day. This development has transformed the way cotton sales are transacted in the United States.

The tremendous volume of cotton traded on the TELCOT system (385,599 bales on a single day in February 1989) led to the development by PCCA of the Electronic Title System (ETS). This system used electronic receipts for cotton traded via computer in place of paper warehouse receipts. The ETS improved efficiency, reduced costs incurred by cotton buyers and gins, and expedited the shipment of cotton to textile mill buyers (Cockerell). The TELCOT system has since become the foundation of The

Seam[®], an online marketplace for cotton providing grower-to-business as well as business-to-business trading among cotton growers, cooperatives, merchants, and mills.

Improvements in cotton classification: High Volume Instrumentation (HVI)

In the mid-1960s the hand classification system of the day “...was not sensitive enough to detect the fact that [the cotton grower] produced a fiber that was deserving of a better price” (Lichtenstein, p. 38). Equipment developed at the Textile Research Center (now called the International Textile Center) of Texas Tech University could test and classify high volumes of cotton according to such characteristics as strength, fineness, color, and trash content. PCCA helped move this instrumentation from the research laboratory to practical application. Called “High Volume Instrumentation” (HVI), this technology improved the reputation of Texas cotton and helped producers of higher quality upland cotton receive improved prices.

Quality Improvement

PCCA, in conjunction with a sister organization, Plains Cotton Growers, helped farmers in the High Plains obtain better seed and use better production practices to produce cotton that met the needs of the textile industry. An article in the PCCA newsletter of 1967 noted:

...a sharp upswing in quality of cotton from the 1967 crop, as the High Plains, long characterized—and criticized—as a land of cotton, much of poor quality, took great strides in quality improvement. (Lichtenstein, p. 40)

John has seen the quality and quantity of his cotton crop improve over the years. He is producing more lint per acre with longer and stronger fiber characteristics than ever thought possible given the growing conditions in his part of Texas. By using plant

growth regulators and genetically modified seed, John is able to grow a cleaner and more quality-consistent cotton crop that better meets the demand of textile mills.

A Venture into Textiles

In 1973, PCCA helped organize 4,000 members into the American Cotton Growers (ACG). This was an independent farmer-owned cooperative centered on the purpose to improve the ginning, processing, storage, and handling of West Texas cotton. ACG began construction of a denim mill in 1975, which initially used 65,000 bales of cotton per year to produce cotton for one customer, Levi Strauss and Company.

In 1987, the PCCA purchased ACG's denim mill. This allowed the mill and its value-adding activity to be shared by the more than 20,000 PCCA members as opposed to the 4,000 members of ACG. PCCA members may sign on to participate in mill earnings through the mill option agreement. Farmers have PCCA withhold \$5 from each bale they market through the denim mill for the right to share in the profits of the plant on a per bale basis. Mill options returns averaged \$15/bale from 1990 to 1997, but recent losses in the textile division have decreased the overall average since then to about \$9.50. Presently, about 60% of cooperative members participate in the mill option. Today, the textile plant processes 120,000 bales of PCCA member cotton into denim for a growing list of customers, the largest of which remains Levi Strauss.

The denim mill has two advantages over other mills because of its relationship to PCCA. First, it gets "first shot" at bales of cotton which meet its exacting standards for high quality denim production with no search costs. Second, these bales are conveniently stored in warehouses owned and operated by PCCA. The direct saving due to these

advantages is an estimated saving of between \$3 and \$5 per bale relative to other textile manufacturers (Lyford).

The mill has also served as catalyst in the development of textile manufacturing techniques and quality measurement devices. The positive influence of the mill on the market for Texas cotton was evidenced in 1995. That year cotton prices were deeply discounted due to high levels of 'stickiness'. This stickiness was attributed to aberrations in the growing season combined with unusually high levels of insects which deposited excess sugars on the cotton fiber. Sticky cotton is generally not detected at the gin, but causes problems at virtually every other stage of the textile manufacturing process, resulting in poor yarn and fabric quality (Hoelscher and Ethridge). PCCA's denim facility was able to address and compensate for the sticky cotton. This gave PCCA members a market for their cotton when other cotton merchants were reluctant to purchase their cotton except at significantly lower prices.

In addition, several of the design and spinning techniques utilized by PCCA have been incorporated in the construction of other textile mills (Cockerell, Summer 2003). These design features and processing technologies are centered on the utilization of cotton with shorter fiber characteristics which in turn has increased usage and demand for short staple Texas cotton.

Net returns from PCCA's textile division have been erratic over the past six years (Table 2 presents a financial summary of textile operations and margins). The division has strived to reduce costs in the face of increasing foreign competition and declining denim prices but net margins have declined from \$26 million in 1999 to a \$2 million loss

in 2004. John has participated in the mill option the last few years, but is wondering if it will continue to offer additional returns or incur additional losses.

The Future Facing PCCA

The recent disappointing returns from its marketing pool have raised grower concerns and newspapers are reporting that growers are pulling out of the co-op. In response, PCCA has implemented new policies that provide for more grower involvement in the administration and marketing strategy of the pool and increased communication between PCCA's management and pool members.

The broader pressures facing PCCA come from several sources. One source of change is in the demand for cotton. The domestic demand for cotton has declined from over 11 million bales in 1996/97 to 6.2 million bales in 2003/04 as domestic mills have closed (Cotton and Wool Situation and Outlook Yearbook). These were the U.S. cotton producer's strongest, best, and most dependable customers. Now, two-thirds of the U.S. cotton crop is exported to foreign textile manufacturers, primarily in Asia. Textiles and clothing made by foreign manufacturers have then reentered as cheap imports. This trend has hurt PCCA's U.S. customers. For example, Levi Strauss, once the primary buyer of the cooperative's denim, saw its net sales decline by 1.3% in 2003 and suffered a net income loss of \$349 million. Consequently it has decreased its manufacturing presence in the United States, closing its last U.S. production facility in San Antonio, Texas in January of 2004. CEO Philip A. Marineau explained why Levi was closing its domestic plants and laying off loyal workers:

To be competitive in the market place required us to lower our cost of goods. It required us to go offshore. Apparel prices have gone down for the last 25 years,

and it continues unabated, driven by an aging population that wants to spend less on clothing. (Dickey, p. 16)

PCCA must also cope with the changing face of American agriculture. Members' farms are larger and fewer and operating on thin margins (Torgerson). Larger farms may require different services, products, and structures than those of what we now refer to as traditional small 'family farms'. This calls into question whether the cooperative can serve all members and if not, which ones it should serve.

Various technological innovations affect both growers and cooperatives. Growers are becoming more efficient in gathering and transporting their crops and have increased options regarding input procurement and crop processing. Advances in information technology have speeded up buying and selling decisions because they are easier to transact and have made markets global. The consequence is that events from the other side of the globe may have as much impact as events just down the road.

American agribusiness continues to feel the effects of consolidation and industrialization as bargaining strength continues to be gained by the processors, wholesalers, and retailers of U.S. agricultural products. Supply-chain management techniques by such major retailers as Wal-Mart and vertical integration by agribusiness processors places constraints and conditions on suppliers at all levels. The identification and tracking of commodities creates more opportunities for buyers of agricultural products at all levels to influence food and fiber marketing. Product origin identification creates additional responsibility and accountability on the part of both producers and their co-ops in meeting the needs and wants of their customers and provides a means for meaningful feedback to occur between producers and consumers.

Some of the innovations by which PCCA has added value to members' cotton seem to have run their course. Growers have access to more and more marketing information and marketing options and may feel they can receive better returns on their cotton by making their own selling decisions. Such innovations as TELCOT and HVI have greatly benefited all cotton growers but hold little or no proprietary benefit for PCCA members today. The flood of cheap textile imports into the United States may make the current ownership of manufacturing facilities (i.e. the ACG denim mill) in this declining industry more of a liability than an asset. The challenge for PCCA is to remain a viable entity in the face of such challenges. For it to do so, may require more innovation and initiative than any time in its history.

A Critical Marketing Decision

John said, "Choosing the right way to market his crop is probably the most important decision I make during the entire year." He is nagged by the reminder of how much he might have made by marketing his cotton on his own last year rather than relying on the marketing pool. If he had sold at harvest last year, he too would have "hit the highs" rather than receive the 'scaled-up' price of the pool. But John is also aware that the likelihood of seeing the market peak at harvest is very slim. In the last year alone, there was an approximate 30¢ price swing in cotton prices that changed the value of a typical bale of cotton by \$150. As more and more of the U.S. cotton crop is bound for the export market (especially China), John realizes that the influence of foreign buyers will have an increasingly volatile effect on U.S. cotton prices.

PCCA is allowing growers who have had a change of heart an additional opportunity to withdraw from this year's marketing pool. John knows he must have the highest returns possible from this year's crop and is unsure of what he should do. Should he stay committed to PCCA and its marketing pool or market his cotton independently?

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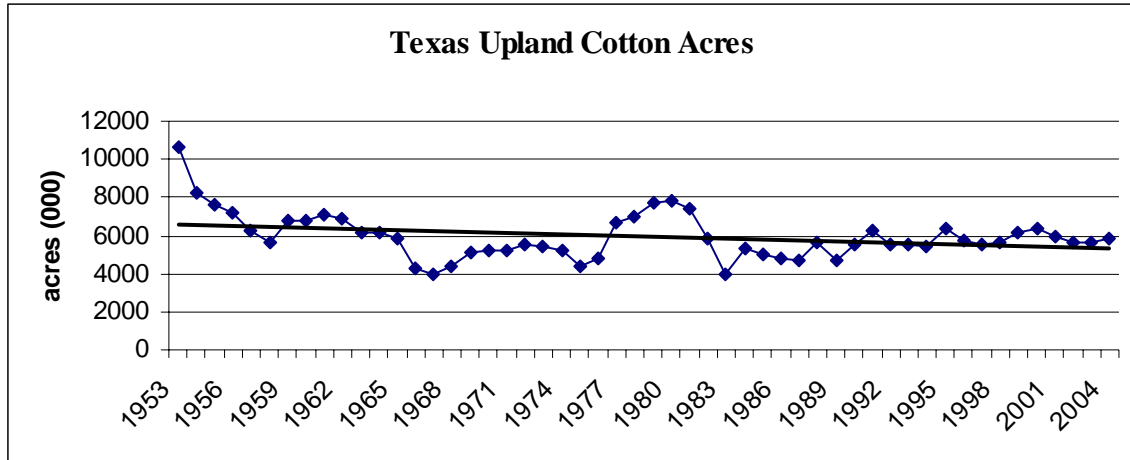
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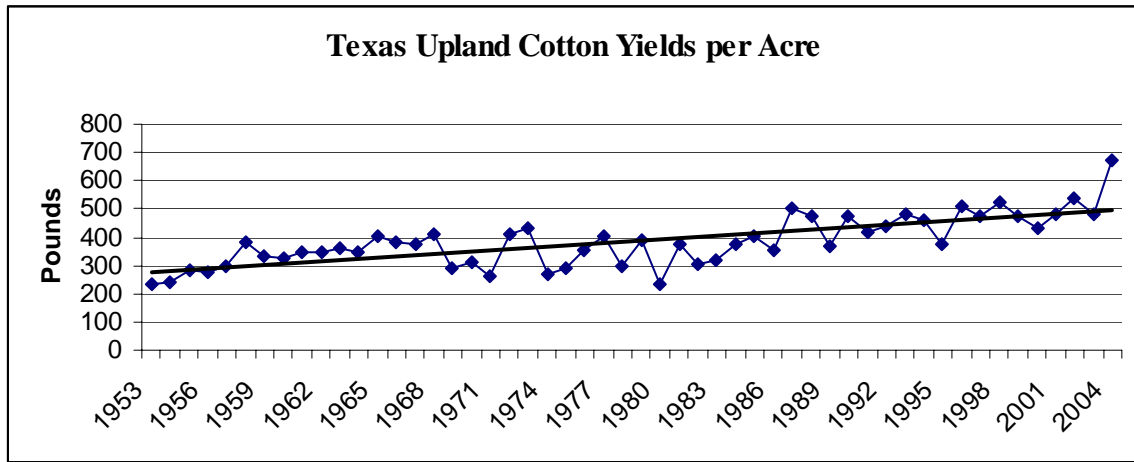
Figures and Tables

Figure 1. Texas upland cotton acres planted—1953-2004.



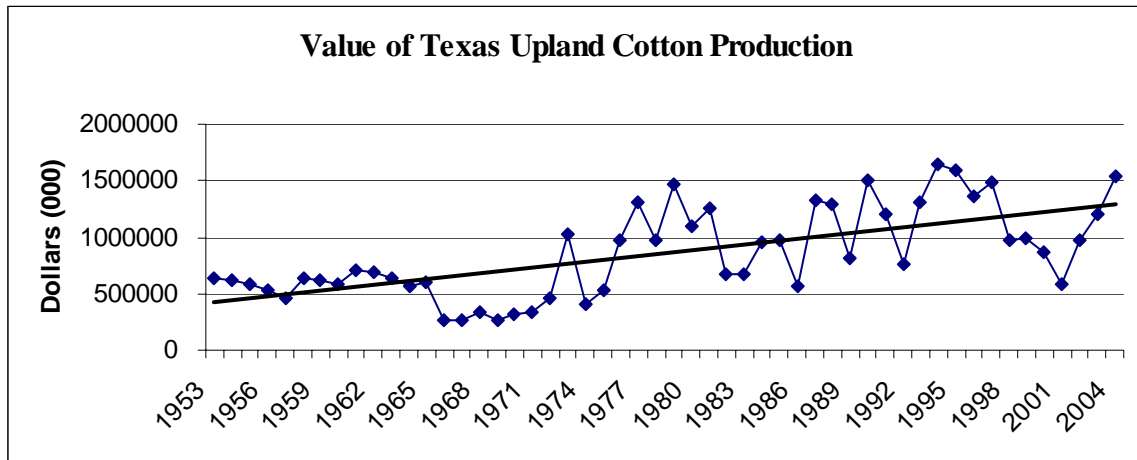
Source: Agricultural Statistics Data Base

Figure 2. Texas upland cotton yields per acre.



Source: Agricultural Statistics Data Base

Figure 3. Value of Texas upland cotton production.



Source: Agricultural Statistics Data Base and Texas Cotton Review.

Table 1. Summary of marketing pool operations (in thousands of dollars)

	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
Bales received (000's)	1,020	1,890	1,650	1,750	2,210	1,800
Cotton Sales	\$292,965	\$494,674	\$410,251	\$394,173	\$559,474	\$571,329
Less: Cost of Sales	<u>192,626</u>	<u>362,104</u>	<u>338,921</u>	<u>322,427</u>	<u>507,924</u>	<u>477,832</u>
Gross Margins on Sales	100,339	132,570	71,330	71,746	51,550	93,497
Patronage Dividends	<u>149</u>	<u>144</u>	<u>209</u>	<u>247</u>	<u>29</u>	<u>65</u>
Total Gross Margins	100,488	132,714	71,538	71,994	51,579	93,561
Direct Sales Expenses	<u>25,217</u>	<u>34,713</u>	<u>40,664</u>	<u>29,459</u>	<u>31,134</u>	<u>36,881</u>
Net Over CCC Loan	75,271	98,001	30,874	42,535	20,445	56,680
Less:						
Progress Payments on Bales Sold	73,078	89,419	29,916	37,129	25,536	49,937
Net Margins/ (Overadvance)	<u>\$2,193</u>	<u>\$8,582</u>	<u>\$957</u>	<u>\$5,406</u>	<u>\$(5,091)</u>	<u>\$6,743</u>
Returns per bale	\$2.15	\$4.54	\$0.58	\$3.09	\$(2.30)	\$3.75

Table 2. Summary of textile operations (in thousands of dollars)

	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
Sales	\$134,337	\$112,874	\$118,431	\$79,242	\$88,628	\$80,631
Less: Cost of Sales	<u>99,229</u>	<u>103,921</u>	<u>116,689</u>	<u>81,731</u>	<u>79,599</u>	<u>79,480</u>
Gross Margins on Sales	35,107	8,953	1,742	(2,489)	9,029	1,151
Patronage Dividends	<u>81,644</u>	<u>152</u>	<u>257</u>	<u>311</u>	<u>208</u>	<u>150</u>
Total Gross Margins	35,189	9,106	1,999	(2,178)	9,237	1,301
Selling and Administrative Expenses	8,596	9,024	9,264	6,588	5,082	3,577
Restructuring Charge			6,200			
Net Margins (Loss)	\$26,592	\$82	\$(13,465)	\$(8,767)	\$4,155	\$(2,276)

Teaching Note

The Value of Plains Cotton Cooperative Association

Case Summary

It is important for students of agribusiness management and agricultural economics to understand the role of cooperatives and the impact this unique form of organization plays in agricultural economics with its distinct characteristics, strengths, and difficulties. However, the recent struggles of farmer cooperatives to maintain profitability and membership has raised the question of whether co-ops are “...an inefficient anachronism—a prisoner of eighteenth-century origins” (Merrett and Walzer, p. 4) or remain a viable and relevant business model in the face of intensifying economic competition. This case investigates a highly successful, innovative, and dominant cotton cooperative: Plains Cotton Cooperative Association (PCCA). Recent disappointing returns from PCCA investments to add value to its members’ cotton have resulted in many growers reassessing the value of marketing with the co-op and considering other marketing options. The specific problem facing cotton growers in the Southern High Plains is whether to commit their cotton to the various potential value-adding activities of PCCA or to market their crop by alternative means.

Teaching Objectives

The purpose of this case is to provide a practical approach to teach students the value of a cooperative. This is set in the context of considering whether the benefits of membership are sufficient to merit participation by a particular grower. Key case objectives will focus on the evolution of value creation by a cooperative and the expectations of future value-enhancing opportunities. Specifically, this study will:

1. Show how a cooperative influences the competitive landscape in a given region and how it provides benefits to members.
2. Explore the strategic decisions of a cooperative as it considers benefits and/or programs which would maintain producer loyalty, increase the volume of product handled, and expand its member base.
3. Consider the reasons for a producer to continue membership/participation in a cooperative.

Suggested Discussion Questions

- I. By what means has PCCA been able to improve the competitive viability of cotton producers in Texas? Do you think that other cooperatives provide similar benefits?
- II. What factors should John Williams consider in making his decision whether or not to market his cotton with PCCA? What would you recommend John do?
- III. Evaluate the operations and strategic decisions of PCCA by way of a SWOT analysis, Porter's Five Forces industry analysis, and financial ratios. Based on these analyses, what strategic choices would you recommend for PCCA to increase its performance in its value generating activities?

Case Analysis

I. How has PCCA impacted the competitive viability of cotton farmers in Texas?

Text books on agricultural marketing cite the primary reasons for the formation of cooperatives to be the desire of agricultural producers to increase farm revenue through gains in bargaining power and an increase in returns or a decrease in costs associated with their marketing and productive activities. PCCA was founded to accomplish these same goals. Specifically, the defining mission of PCCA was to lower marketing costs and have a cash market available every day. The accomplishment of this mission has resulted in the addition of substantial value to short staple cotton. An analysis of this value adding activity and thus the value of PCCA may best be considered in two contexts: 1) the proprietary returns to its grower/members from the value adding activities and investments of the cooperative and 2) those benefits which are shared by all cotton growers regardless of their marketing affiliation.

Proprietary Benefits

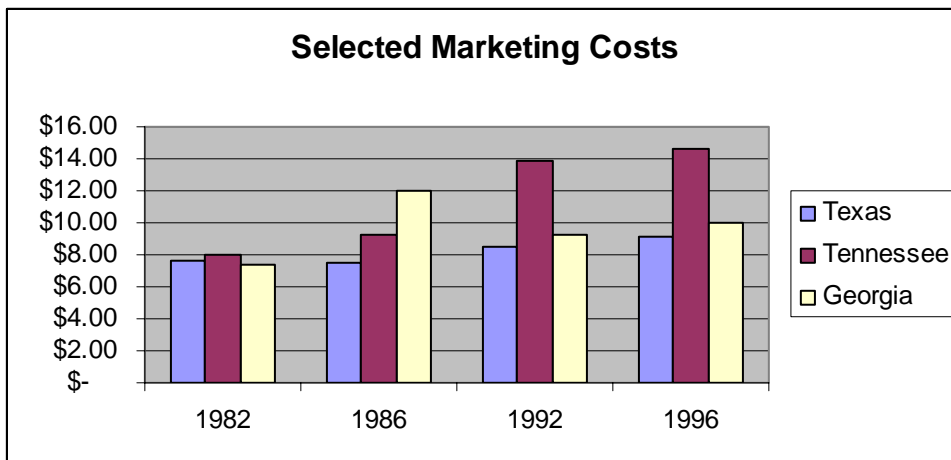
The main proprietary benefits of PCCA membership may be seen in the ways it has significantly increased the net farm incomes of its growers by the following means:

- **Reduced marketing costs**—PCCA accomplished this founding objective via economies of scale in the storage, handling, and marketing of Texas cotton. At its founding, Texas producers faced marketing costs that were substantially higher than those of cotton producers in other parts of the United States. In the 1950s, the cost of marketing cotton in Lubbock, Texas was \$14.20 per bale compared to \$12.40 in Dallas, \$10.40 in Memphis, and \$6.25 in Augusta, Georgia (Lichtenstein). Primarily through pooled warehousing and selling activities,

PCCA has achieved a level of marketing costs that are now equivalent to those of the other cotton growing regions in the U.S. (see figure 1). Marketing efficiencies and economies of scale discussed above have also increased the marketplace competitiveness of PCCA member's cotton. While recent returns have declined, pool operations have earned growers an additional \$7 per bale (1½ cents per pound) over market averages for the last 17 years.

- **Market access**—PCCA's marketing innovations have provided a dependable source of market information to cotton producers while its pool structure and textile mill operation guarantee an outlet for member's cotton at a competitive price.
- **Market power**—While PCCA has not exercised market power in the sense that it dictates terms of trade to industry buyers or suppliers, the size and scope of PCCA's marketing operation provides its members with some strategic advantages. With PCCA's storage capacity and large trade area and volume,

Figure 1. Selected marketing costs of U.S. cotton.



Source: Glade, Johnson, and Meyer. "Cotton Ginning Charges, Harvesting Practices, and Selected Marketing Costs". USDA Economic Research Service.

cotton customers know they are dealing with a supplier who can meet a wide range of demands in terms of both quality and quantity.

- **Value-adding activities**—cotton warehousing and the denim mill have provided members with additional revenue not offered by other, conventional marketing channels. Member earned warehouse dividends have recently averaged \$10 per bale and the textile mill has returned a long term average \$9 per bale.

The figures cited indicate that PCCA membership may provide an additional \$26 per bale to its grower members at virtually no cost to the producer. On a 480 pound bale at the loan value of \$0.52/pound, this represents roughly a 10% increase in cotton returns or value added by PCCA. The problem is recent returns have been substantially below these long term averages.

Industry Benefits

Some well known cooperatives, such as Ocean Spray Cranberries and the National Grape Cooperative Association (Welch's), have been such dominant forces in their industries that they have transformed the marketplaces in which they compete. PCCA has had such an impact on the cotton industry. The benefits and value that PCCA has provided all cotton growers, regardless of whether they are members of PCCA or not include:

- **Improved reputation of Texas cotton**—through its support of improved varieties and production techniques, objective instrument testing, and demonstrated suitability of cotton from this area for denim production, PCCA has elevated the image of West Texas cotton. No longer considered 'trash cotton' to

be used only as a last resort, it is now used to produce the finest denims in the world.

- **Marketing innovation**—TELCOT, the SEAM, and the Electronic Title System have drastically cut marketing costs, improved marketing efficiency, and provided growers with a dependable, accessible, and competitive cotton market. These marketing innovations have transformed the way raw cotton is marketed around the world.

II. *Do you recommend that John Williams stay with the co-op? Why?*

As reflected in the case, John and his family have a long history with the cooperative movement. He believes in the values upon which cooperatives were founded and operate and what they stand for. But his loyalty stems not only from his beliefs, but also from the fact that his farming operation has profited from his relationship with PCCA.

But John must also consider the financial consequences of his decisions. By marketing through the pool, he is relieved of the time consuming responsibility of monitoring markets and making marketing decisions. However, if John had sold independently at harvest like some of his neighbors, his net income would have improved by over \$100,000. John is a well-educated, well-informed, innovative agricultural producer. His operation did not grow to its present size by being afraid to take risks and take responsibility for his actions.

John (not his real name, but an actual cotton producer) has valid reasons for staying with or leaving the marketing pool, but at present has decided not to leave the co-

op and he will stay with the marketing pool. His decision is based on the following considerations:

- His relationship with PCCA has been a profitable one over the years. Recent returns have been disappointing (both from the pool and the denim mill) but over the years these activities have contributed much to his 'bottom line'.
- John knows the returns some farmers received by selling at harvest last year were more of an aberration than an epiphany. He knows the odds of hitting market highs at harvest are extremely low and that those producers who market their crops this way will receive, over time, returns well below market averages, unlike pool returns which average above.
- The freedom from making marketing decisions allows John to focus on his production activities. His operation is becoming less dependent on hired labor and more technologically intensive which takes John's time, focus, and energy to manage. John knows that if were marketing on his own, he would be making those decisions 'when he had the time' or 'when it was convenient' rather than under the vigilant eye required to market 'when the time is right'.
- As stated above, John believes in the co-op. He recognizes that PCCA management is taking steps to provide more grower involvement and oversight of pool operations and that all its marketing strategies and personnel are under evaluation. He has not lost his trust in the administration of the cooperative and supports their efforts to revise operations to improve profitability.

III. *Evaluate the operations of PCCA according to a SWOT analysis, Porter's Five Forces model, and financial ratios.*

There are several widely accepted analytical tools from the field of strategic management that are appropriate in problems such as the one presented here. This question provides the opportunity to apply three of these tools and develop recommended strategic choices for PCCA.

SWOT Analysis

A typical tool for strategic management, a SWOT analysis, is a useful framework for guiding a systematic discussion of a firm's situation. This quick overview of the company's strategic situation helps match the resources and capabilities of the firm to its competitive environment. While this process is subjective and subject to limitations, it can serve as a guide in the development of strategic alternatives by summarizing relevant information.

The key strengths, weaknesses, opportunities, and threats of PCCA are presented in the SWOT matrix, figure 2. This list provides a starting point for a discussion of PCCA's strategic situation. After considering and categorizing firm attributes and environmental conditions, this information must be interpreted. One means of accomplishing this is by rating the relative dominance of strengths to weaknesses and threats to opportunities. Based on Porter's "Company Position/Industry Attractiveness Screen" (1980), this technique reveals strategies which may likely result in successful financial performance. Figure 3 summarizes this relationship and provides insight into suggested strategic direction.

Figure 2. SWOT analysis of PCCA

<u>Strengths</u>	<u>Weaknesses</u>
<p>Size.</p> <p>Grower commitment.</p> <p>Long, stable history as an organization.</p> <p>Market innovation.</p> <p>History of positive financial returns.</p> <p>Textile operation.</p> <p>Proximity to foreign markets.</p> <p>Good relationship with cotton organizations.</p> <p>Consistent, reputable supplier of denim.</p> <p>Strong relationships with denim buyers.</p> <p>Denim facility has access to high quality cotton with no procurement costs.</p>	<p>Recent poor financial returns.</p> <p>Publicized grower discontent.</p> <p>Tarnished public image.</p> <p>Investment in textile operations show declining returns.</p> <p>Cooperative structure may slow decision-making process in a highly dynamic business climate.</p>
<u>Opportunities</u>	<u>Threats</u>
<p>Cotton growing area is expanding.</p> <p>World textile market is growing.</p> <p>Growers seek price stability.</p> <p>Cotton growing is encouraged through favorable treatment in farm program.</p> <p>Changes in farm program may make marketing expertise more important (less government price support).</p>	<p>Declining domestic market for cotton and fabric.</p> <p>Increasing foreign competition.</p> <p>Poor financial returns to cotton farming.</p> <p>Competition from other marketing pools, merchants, and mills.</p> <p>Changes in farm program may make cotton a less viable option.</p> <p>Volatile cotton market.</p>

Figure 3. Strategic options suggested by SWOT analysis.

	S>W	W>S
O>T	Grow/Build	Hold/Maintain
T>O	Hold/Maintain	Retrench/ Harvest/ Exit

When strengths are perceived to exceed weaknesses and opportunities dominate threats, growth strategies are likely to result in successful performance. When strengths are perceived to be subordinate to weaknesses and threats stronger than opportunities, a retrenching, harvesting, or exit strategy is suggested. The less determinate cells represent situations when the dominance of one aspect of the analysis over another is mixed. A holding or maintenance strategy is preferred.

PCCA's marketing division appears to have substantial strengths relative to weaknesses and the external environment is one in which the opportunities seem to overwhelm the threats. Therefore a growth strategy for the marketing division would be appropriate. The textile division suggests the opposite. PCCA may not have the strengths to offset its weaknesses and environmental threats in this area certainly overshadow opportunities. A retrenching, and possibly even an exit strategy, seems appropriate.

Porter's Five Forces Analysis

Another useful analytical tool is Porter's Five Forces analysis. This tool evaluates the threats to profits that an industry faces according to internal rivalry, threat of entry, availability of substitutes, supplier power, and buyer power. For PCCA, this analysis

must be done according to the major industry groups in which it participates: raw cotton merchandising (the marketing pool, table 1) and the textile industry (denim, table 2).

Table 1. Five forces industry analysis: Cotton merchandising

Industry Force	Discussion	Threat to profits
Internal rivalry	Long history of cooperation between U.S. cotton cooperatives. Competition between pools and merchants for market share can be intense.	Neutral
Threat of entry	Entry is not restricted. Buyers of cotton can operate with small offices and gain market share by offering profitable contracts.	Moderate
Substitutes	Few substitutes for the service provided by cotton merchants.	Low
Supplier power	Suppliers are cotton farmers who are diverse and disproportionately small compared to the cotton merchants.	Low
Buyer power	Buyers are textile mills who are competing in an ever increasingly competitive textile industry. More and more of these buyers are located overseas and will buy from the lowest price provider, foreign or domestic. U.S. is the world's largest supplier of cotton for export. These buyers are less concentrated than the major cotton merchants.	Neutral

Overall evaluation: Threats to profits are generally low to neutral indicating that this industry may provide returns near to slightly above average. This information will contribute insight to the external opportunities and threats faced by PCCA which are a critical component of the SWOT analysis.

Table 2. Five forces industry analysis: Textiles (denim)

Industry Force	Discussion	Threat to profits
Internal rivalry	Intense rivalry for market share between established firms and new low-cost rivals (i.e. China). Product is often undifferentiated resulting in fierce price competition.	High
Threat of entry	Compared to other industries, textiles may be efficiently produced at a rather small scale lowering entry barriers.	High
Substitutes	Few substitutes for cotton denim.	Low
Supplier power	Suppliers are cotton merchants who purchase from individual farmers. Raw cotton is undifferentiated with a relatively elastic demand curve, the market sets the price.	Low
Buyer power	Buyers are apparel companies who sell denim products. Buyers will purchase from the lowest cost provider.	High

Overall evaluation: Threats to profits are high. This industry will likely earn below average profits in today's economic climate. Again, these findings will make a significant contribution to the SWOT analysis of PCCA.

Financial Ratios

While the case does not present a great amount of financial information, it is possible to draw some basic conclusions. Profit margins for the past six years in PCCA's pool operations range from -.91% to +1.73%. Five forces industry analysis suggests that favorable returns are possible in this sector and the SWOT analysis suggests that PCCA has some core competencies in this industry segment. Therefore, it seems likely that PCCA may be able to increase profits from this area of operations. Managerial focus and attention to this area should result in improved returns.

The profit margin from the denim mill has declined from a 20% return in 1999 to lows of -11% for two of the six years reported. Returns from the most recent year reported are -2.82%. The outlook for this endeavor from both a five forces perspective

and the SWOT analysis does not look positive and it appears that continued losses are likely.

Strategic Recommendations

The above strategic analyses play important roles in assessing the competitive capability of a company in a given economic environment. The implementation of successful strategies is predicated on the careful match between a firm's strengths and weaknesses and its opportunities and threats (SWOT). A five forces analysis provides a detailed description of the competitive structure and expected profitability of the industry in which a firm operates. Financial ratios are important indicators firm performance. These taken together have been used to develop the following strategic recommendations:

1. Build on marketing expertise by expanding cotton merchandising operations.
 - a. Establish a high-value marketing pool for selected varieties that produce higher quality premiums. By developing a large pool of this higher quality cotton, PCCA would be able to meet the needs of quality conscious mill buyers, support and encourage the production of such varieties in the region, and increase returns to grower members.
 - b. Investigate the marketing opportunities of organic cotton. If productions and marketing feasibility exist, a marketing pool for this specific product would likely increase grower returns built on PCCA's relationship with cotton buyers and the ability to offer a large volume of certified product.
2. Develop marketing alliances in the textile industry. The current reality in denim production is that China, Pakistan, and other countries are expected to expand

U.S. market share while U.S. textile production continues to decline. One way to increase market share is to develop strategic alliances with some of the foreign sewing operations so that countries import denim rather than cotton.

3. Continue to lower marketing costs for Texas cotton through transportation specialization. Work with cotton marketers through the operation and coordination of an integrated transportation network or by negotiations with transportation providers.

The strategic alternatives suggested are consistent with those identified in the SWOT, five forces, and ratio analysis above. They focus on the expansion of PCCA's marketing efforts based on its expertise and reputation in this area. Strategic alternatives for the textile division focus on positive interactions and relationships with what are now seen as competitors in order to facilitate industry growth and increase returns for all participants. PCCA should continue to explore ways to lower marketing costs and improve marketing efficiency, areas in which it has historically been very successful.

Epilogue

As mentioned in the case, PCCA re-opened a marketing pool sign-out for any producers who wanted to leave the pool. Sign-outs for the 2004 crop year were about 15%, less than PCCA expected and lower than that of competing pools. In response to disappointing pool returns, PCCA has restructured its marketing pool in order to improve communication between the association and pool members and made changes to pool policy, strategy, and operations. PCCA has hired a new CEO and has relocated a grower service representative to reach out to potential cotton growers in Northern Oklahoma and

Southern Kansas. Plans are under way to build a cotton warehouse facility in Liberal, Kansas.

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