LAUNCHING CPFR AT TEXAN FOODS[1]: IMPROVING INVENTORY REPLENISHMENT WITH COLLABORATIVE ACTIVITIES AND TECHNOLOGIES

An Academic Learning Case Study Written for the
Council of Supply Chain Management Professionals

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[1] Names of persons and businesses are changed at their request.

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Introduction

Angela Preston sank back into the cushy leather chair in the *Captain's Club* at LAX, and rubbed her eyes. She and her supervisor, Gordon Ross, had flown halfway across the country to Fresno to meet with representatives from a key supplier, Valley Bakers, to review the outcomes of their 180-day CPFR pilot program. When her drink arrived she hardly touched it, except to stir it nervously, until Gordon returned from the ticket counter. When she had agreed to accept the promotion to Category Director last year, she had no idea that the pressures of this job would be so enduring. The last six months had seemed like one long, dull headache. Since the initiation of the CPFR pilot program, it seemed that Valley, their supplier, had been making all the demands in this relationship. Wasn't the customer supposed to be the one who was always right?

Gordon eased into the chair next to her and immediately noticed the weary, pained look on her face. As Vice President of Supply Chain Operations for Texan Foods for the last 9 years, he had learned a lot about dealing with employee and customer frustrations. The CPFR pilot with Valley had tested his resolve as well. Valley's CPFR team was unhappy with the small performance gains – and the occasional significant losses – that the program had delivered for the 34 SKUs that had been included in the pilot. Valley had wanted a more comprehensive level of collaboration from the very first day, and they were sure that Gordon was withholding information from them that would allow their small company to realize greater cost savings sooner. Always taking a conservative approach to new initiatives, Gordon had been adamant that the pilot program would only take a data-sharing approach, with possible increased levels of collaboration possibly occurring, after each side had the chance to evaluate the program's trial phase. David Brooks, the VP at Valley who was championing their CPFR effort, had scoffed a little at Gordon's reluctance. He wanted two-way sharing of sales forecasts, past years' financial statements, and the matching of order forecasts with sales commitments from the outset of the program. Each side seemed to be starting to point the finger at the other in response to the project's mediocre beginning, and as Texan's key contact for Valley and David Brooks, Angela felt caught in the middle.

"Relax," Gordon tried to soothe her. "They will come around. I have looked into this type of program pretty thoroughly, and these things just start slowly. They will just have to be patient. The numbers will improve." Angela exhaled slowly. "I know," she said. But she quietly

dreaded the prospect of Texan replacing some or all of the Valley products – croissants, English muffins, and exotic sandwich breads, buns, and tortillas – which were a cash cow for Texan Foods and a staple of many of their devoted customers' menus, featuring alternative products. As they boarded the connecting plane back to Dallas, she also began to dread her annual performance evaluation meeting, which was scarcely a month away. Surely if these products continued to perform sluggishly, Gordon would share some of the responsibility. After all, Gordon was the one who had represented Texan at the joint planning session at the outset of the project, and who had been instrumental in designing the front-end agreement between Texan and Valley. Gordon had always been a level-headed and respectable colleague certainly he would bear some of the blame if the relationship between Texan and Valley went south because of this new and somewhat idealistic program.

Texan Foods: An Eclectic Grocery Experience

Texan Foods is a gourmet grocery chain which was founded near Amarillo, TX in 1941, by R. L. (Buddy) Howlett, who had originally moved to the region to pursue opportunities in the then-booming Texas oil marketplace with his wife Janeen and two sons. Buddy was the consummate entrepreneur, and when the high plains of Texas exploded with wildcatters, roughnecks, and their families during the mid-1900s, he left the oil business and opened a combination general store and family food market. The store evolved over time, after its modest beginning as a small dry goods retailer, grain and feed source, and main street café. Today, Texan Foods has grown to become a well-known medium-sized grocery chain with approximately 65 locations across the southern and southwestern United States. Though the original store still exists in the same small town in the Texas panhandle, most of the current locations are in the more populated areas in Texas and larger southern cities, within an area stretching from New Mexico to Georgia.

In some of the more sophisticated areas in southern suburbs and cities, Texan Foods has generated a cult-like following among Generation-Xers and Millenials by offering high-quality, sometimes hard-to-find gourmet foods, a huge wine selection, cooking classes, and live in-store music ranging from classical to modern alternative rock. The chain is known for the quality of its fresh produce, its wide variety of breads, meats, cheeses, and exotic delicacies, and an interesting, "hip" retail atmosphere. Many stores also offer a full-service kitchen and eat-in restaurant with complete catering services and online ordering for shoppers who are pressed for time. The chain's loyal customers swear by its quality and eclectic selection, though most

agree that prices could be a little lower, even for many of the unique foreign foods and beverages that are available. In addition to providing a fresh, new option in the increasingly saturated grocery marketplace, Texas Foods is a socially conscious company, and promotes environmentalism by proudly serving organic foods, foreign dishes, and pre-prepared meals in recyclable non-plastic containers whenever possible.

In order to perpetuate Texan's appeal to its quickly broadening group of customers, members of the supply chain team (and specifically the procurement group) are constantly on the lookout for new and exciting culinary trends. Due to the wide variety and origin of Texan's product assortment, the chain maintains an unusually large supply base – especially in light of the contemporary trend toward supply base reduction – consisting of around 3,000 suppliers. However, many of these supplier relationships are managed electronically. Texan is a technologically savvy company, and was among the first known medium-sized grocers to embrace e-procurement for common usage.

Though Texan Foods offers over 35,000 unique customer selections within each of its retail locations, the company considers four primary product categories to be its revenue-generating cornerstones: produce, wine, gourmet prepared foods, and baked goods. Of these, the latter category had become a cause for concern in the early 2000s. For reasons that the Texan supply chain team were not exactly sure of, supply metrics for baked goods were not quite meeting their mark. Though sales for this category had been increasing slowly but steadily since 1995, inventory holdings for the category had outpaced forecasts. Contribution margin for the baked goods category began to slip, and fell 3.8% over five years despite increased overall sales for the category. Simultaneously, distribution center (DC) stock-outs were slowly rising to around 5% to 7%, and would occasionally spike to nearly 10% for brief periods. From her previous experience as a baked goods and canned goods buyer, Angela also believed that customer stock-outs were rising. Finally, though forecasting for baked goods was only done sporadically, for certain lines such as traditional breads, rolls, and buns, among other items replenishment was already done via automatic systems (e.g., VMI). The forecasts that were made for baked goods tended to be relatively inaccurate versus those for other categories. By mid-2003, when Angela accepted the promotion from the buying position to the inventory group, she knew that something was amiss with baked goods. Unfortunately, the details of this situation were lost and forgotten for a while in the excitement surrounding her job transition.

However, one supplier that had a vested interest in seeing that these issues did not go unnoticed for long was Valley Bakers. Valley Bakers is a small but somewhat well-known

bakery based in central California, just outside Silicon Valley. The company has approximately 100 employees, and has established itself as a niche brand (largely via word-of-mouth) in the Rocky Mountain and Pacific states by providing handcrafted baked goods with extremely fresh and unique flavors. Valley uses all-natural ingredients whenever possible, includes as few preservatives as the FDA allows, and in general, seems to genuinely care about the health and longevity of customers and employees. When she first met to discuss the Valley brand with Brian Darby, the broker temporarily handling the Valley product line in early 1999, Angela immediately got the impression that Valley and Texan fit extremely well with each other's business needs, and were aligned with very similar customer segments. Angela, with the consent of several Texan supply chain and marketing managers, tested some of the Valley products in the flagship store in Dallas, and in another major outlet in the Atlanta suburbs, where the line ended up selling very well. In early 2002, Texan Foods introduced Valley products on a wide scale in 38 stores, with similarly positive results. Building on this initial success, a direct relationship with Valley was established, cooperative marketing campaigns began both in-store and via directed advertising, and all facets of the line extension (which now numbered 128 SKUs) seemed to be going well. That is, until Valley's production management called, politely complaining about inconsistencies in order cycles. The call was followed soon thereafter by a two-week DC stock-out of several top-selling Valley SKUs, and then by the recent bad news concerning the internal metrics. Before Angela moved on to her new job, she mentioned to her previous boss and her replacement that additional attention needed to be paid to this account, but failed to follow up once her new responsibilities arose.

A New Process for Handling Replenishment

Collaborative planning, forecasting, and replenishment (CPFR) is an innovative and relatively new business process that allows supply chain partners to use their information technology for collaboration on forecasts of future demand, and for planning for future inventory replenishment. Usually, the partners involved in a CPFR initiative use the Internet to share data, exchange ideas, or otherwise collaborate with respect to inventory management tasks that are shared by the involved companies. At other times, the members of the alliance will meet in person to discuss various issues that arise in the weekly or monthly operation of CPFR. Because the collaborating companies share information across electronic linkages, connecting their respective information systems, it is important that the partners trust one another. Allowing other companies to view sensitive information related to your firm's business strategy or

financial position can be a very risky proposition, and yet its benefits can also be very tempting. Companies that are able to use collaborative forecasting to synchronize inventory flows often find themselves more successful in a number of ways, not the least of which include significant cost reductions, and notable increases in customer satisfaction.

Gordon Ross had initially heard of CPFR during an informal meeting with some of his key suppliers in the spring of 2002. Two condiment brokers with whom Gordon frequently did business, Frank Abbott and Steve Hudson of Allied Spice Inc., were chatting about a CPFR presentation they had recently attended during a national Grocery Manufacturer's Association (GMA) meeting. Frank had explained that some companies were taking the guesswork out of ordering by "hooking their computers together." Steve was more skeptical, and did not like the idea of allowing their customers access to Allied's computer systems, for fear that sensitive price or cost data might be discovered that could hurt the company's sales position. However, he did see an upside in that the company would not have to sell-off so many unpopular items at a discount (which in his opinion hurt both the company and his own commission checks). Steve had heard that one of his other customers was involved in CPFR relationships, and as a consequence was able to reduce stock-out occurrences to less than 3% for the related products.

After the conversation with Frank and Steve, Gordon's interest in CPFR was piqued, and for a few weeks he sought out additional information during his spare time. It was possible, he had thought, that this new idea could create some significant savings for Texan Foods if approached correctly. Gordon was especially excited about the possibilities for Texan's fresh produce and dairy categories, which had variable supply cycle times due to weather trends, demand uncertainty, and the like. Gordon's research led him to an organization known as VICS, the *Voluntary Interindustry Commerce Solutions* association which among other activities, has taken the lead in establishing CPFR best practices that are applicable across multiple industries. He read extensively about what VICS was doing to enable grocers like Texan to implement CPFR with trading partners, and about several CPFR success stories in the grocery and mass-merchandise marketplaces. Importantly, Gordon began to realize that though CPFR seemed complicated, it carried with it several benefits that any business holding physical inventory would love to tap into: more accurate forecasts, fewer stock-outs, increased sales, greater visibility of inventory, lower costs of goods sold, and decreased on-hand inventory.

Armed with this motivation, and based on the VICS CPFR model (which he found at www.vics.org), Gordon came into the office one weekend and began to sketch out some general ways in which CPFR might be advantageous for Texan Foods. However, as often

happens in the workplace, the next few weeks became extremely busy, and Gordon's CPFR folders were buried on his desk under stacks of more pressing work. His intentions had been good, but he lost his momentum. That is, until one day when Angela, who had only recently been promoted to a vacant position in the department, casually mentioned the simmering issues with Valley during a staff meeting.

Problems with the Initial Pilot

Following multiple internal planning meetings, numerous informal discussions, and several journeys through the obstacle course of office politics, the decision was made to approach Valley regarding an initial CPFR pilot. Gordon took the role of champion for the project at the upper management level, while Angela was to focus on operational issues. Gordon made it very clear to Angela that this was a very big opportunity for her, and that her business reputation would be significantly affected by the outcome of the project. Angela was confident that she was up to the task, and saw this as a way to right the situation with Valley, albeit a littler later than she may have wanted. She also recognized that this was a key point in her career – a chance to shine in the spotlight. So it was on one Friday afternoon in late 2004, that Angela eagerly accepted the challenge.

Closely following the VICS CPFR model, Angela's team prepared her and Gordon for their initial CPFR pilot meetings with Valley – where the front-end agreement would be constructed, and joint business planning would begin. During these sessions, the ground rules for the collaboration were established. Specific decisions were made regarding the products to be piloted, the details regarding their introduction, and the exact levels and types of collaboration that would take place during the pilot. Angela knew that these were important details to get right, as they would set the tone for the remainder of the relationship. She also gained a more realistic sense of her own relevance to the project. As the project progressed, it became increasingly clear that she would bear the burden of responsibility for the success or failure of the collaboration – though Gordon's advice was always available, he adopted a somewhat hands-off approach, and rarely intervened in planning sessions unless specifically asked for input. It was evident that once the initial steps were completed, Angela would be handling the pilot with relative autonomy.

The sessions working up to the initial meetings went well, and everyone on the Texan supply chain team felt that the project was off to a good start. However, during the initial meeting between Texan and Valley, it was apparent that the two companies came to the table with somewhat different expectations as to how the alliance should be structured and managed.

Texan wanted to start slowly, only sharing a restricted range of relevant sales and pricing data via a daily web-link. On the other hand, Valley's VP, Brooks, said he wanted to "dive in headfirst," meaning that Valley wanted to have full time EDI-linked access to a wide range of databases, including product release information for competing firms' products, Texan's financial data from previous years, and internal supply chain data related not only to the SKUs being piloted, but the entire bread category. Valley and Texan also disagreed on the number of SKUs to be included in the pilot program – Valley wanted nearly twice as many of its' products to be included than the 34 that were eventually settled on. The duration of the test period was also an issue that created some disagreement. Where the Texan team felt that it would take at least six months to begin to fully realize the benefits, Valley was interested in a much shorter test period. Only through Gordon's skillful negotiations, were final agreements reached.

The launch of the pilot took place on the date they had agreed upon. Perceptions of the success of the launch were somewhat mixed among the participants. Although there was much initial excitement, the ramp-up to full functionality was somewhat slower than expected. This was largely due to non-synchronized and non-connective technologies – several of the information systems' platform components, linking the two companies, did not connect very well at first due to the use of different base operating systems, and the incompatibility between the two firms' focal ERP systems (Texan uses an off-the-shelf solution, whereas Valley uses an internally-developed legacy system). In some cases, the data fields being shared were incomplete, had significant missing data points, or included confusing terminologies unique to each business. Arguments were offered by both sides favoring a common CPFR software package to facilitate and manage the alliance. Valley was convinced of the need for scalability to a much larger number of SKUs than those used in the pilot, while Texan wanted a lower-cost solution with fewer bells and whistles. All of these issues generated some additional hesitancy between the groups, but each was willing to work to make things right, as there was much to be gained by a successful collaboration.

For a period of time following the somewhat rocky launch, the CPFR pilot seemed to be running smoothly. Week-to-week operations were fairly straightforward with forecasting done on Mondays, system updates on Tuesdays, differences reconciliation/exception reporting on Wednesdays, and face-to-face meetings or web conferences held on Thursdays – allowing both sides to have the ability to make timely adjustments. At times though, Valley began to worry about the costs of implementation, which already eclipsed budgeted amounts within the first four months of the six-month pilot. However, both sides seemed somewhat out of touch with the project for significant periods of time, and employees on each side complained that there was

no obvious “go-to” person within the other organization to approach with pressing concerns. Angela did her best to be communicative regarding the project’s progress, and to access Gordon’s knowledge or political clout when needed. However, by the fourth month, many of the Texan employees who had initially been very excited about the project seemed to be turning their attention elsewhere, leaving Angela to feel like she was the only person in the company who stayed in touch with the project. Although she became somewhat overwhelmed at times in serving as the primary contact for Valley, she was able to manage most of their concerns by routing problems and issues to the correct person within Texan. On the bright side though, several of her co-workers who had initially resisted the project (and the changes it was effecting on the organization) seemed to have adjusted well to sharing forecasts, and were sitting-in on the weekly progress report conference calls. In fact everyone was developing solid business relationships with their Valley counterparts.

Reactions and Concerns for the Immediate Future

As the pilot drew to a conclusion, the final results began to be tallied, and Angela called Gordon and the CPFR team together for a final debriefing to evaluate the program, reconcile lingering issues, and to consider the viability of a full-scale CPFR launch. The preliminary results ranged from mildly encouraging to discouraging, and in some cases, reflected apathy. There had been some early positives, but these were somewhat minor in scope. Both sides were recognizing better asset utilization and had more accurate inventory counts: Texan had reduced orders by 5%, inventory by 1.2%, and based on a recent physical inventory count, had increased inventory accuracy to 98.3% from 97.7%. An additional “soft” benefit was an improvement in the quality of the relationships between the Valley sales reps and the Texan procurement team, who had interacted less frequently and on a more formal basis prior to the pilot.

Unfortunately, there were still several areas of concern that would need to be addressed when Gordon and Angela met with the Valley team in California the following Thursday. Both sides were somewhat taken aback by the total costs of the project, and each experienced forecast error rates of over 50% during the duration of the project. Information technology (IT) maintenance costs were also higher than expected, due in part to the higher-than-predicted costs of hardware and software, and the fact that additional part-time IT staffers were eventually added to correct recurring implementation problems. David Brooks, who had pressed for a more cost-effective solution, was particularly unhappy with Angela in regards to the software

selected, and suggested that any future collaborative efforts include price ceilings for these items in the front-end agreement, and more equitable cost-sharing approaches. Valley had also experienced only slight performance improvements, with sales up only 0.65% and distribution costs down only 2.7%. Brooks noted that although he recognized that good results might come slowly, he was uninterested in making any future investment in the project if the realistic payback period exceeded the pilot length. After six months there was still an aura of discomfort emanating from the Valley team with respect to the results, and Angela could not help but get the impression that Valley believed that Texan was "sandbagging" when reporting only marginal gains as well. At the end of the project, on the whole, both sides could best be described as cautiously optimistic, but expressed little certainty that long-term financial benefits would accrue following the six-month trial.

When they arrived in California and met with the Valley team, Mr. Brooks was unexpectedly aggressive, and began to assert demands on Angela and Gordon that seemed somewhat unreasonable. Among his requests, he wanted to fully restructure the initial agreements, placing most of the responsibility and financial liability for the technological components on Texan. He also wanted to restructure the collaboration so that even more information, including several database elements that really had little to do with the bread business, would be shared in real time. The pilot should be further extended, for perhaps another six months, to see if the results of the initial project were valid. In return, he said, he would guarantee that Texan would be granted "most favorable" status among the Valley customers – meaning that they would receive priority over other customers in the event of stock shortages – and would receive additional shipments via courier if necessary, to meet peak demand. Gordon received these demands professionally, and negotiated a settlement that both sides could agree to, including a three month extension of the pilot program, but worried that the relationship was becoming too difficult for one person to manage, and wondered if he should assign additional (or different) persons to direct the alliance.

As Angela boarded the plane to return to Dallas, several questions lingered in her mind. Should Texan have extended the pilot? What should be included in the CPFR front-end agreement between Texan and future CPFR adopters? How can CPFR be instituted as an ongoing business process rather than a one-time project? Which grocery categories and suppliers should be considered in the next round(s) of implementation? And would she be the one that Gordon selected to address these questions in the future?