The abruptness of the closures may have been the only real surprise to many competitors who continue to thrive and who expressed amazement that the industry leader failed to blaze the way with cutting-edge technology.

"There's no reason why CPI didn't invent Instagram (photo sharing)," said Mitch Goldstone, CEO of ScanMyPhotos.com. "CPI had the greatest opportunity. They had a huge customer base nation-wide that they let disappear overnight."

Aware of its corporate strengths, CPI increasingly failed to read and respond to the changing environment in which it conducted business. A glance through its recent history reveals potential problem areas for the company. Rasmussen's 2006 urging to board members to shorten in-store wait times and to modernize backdrops and traditional posing styles was ignored in favor of finding ways to attract additional customers. Consumer expectations were changing toward the immediate gratification enabled by the iPhone age with digital photography and instant access/sharing capabilities for their photographs. CPI, however, remained committed to centralization of printing and avoided the cost of updating stores with digital technology. Meanwhile, competitors discovered innovative ways to build technology into their services and products. Companies such as Picture Perfect offered one-hour digital printing. ScanMyPhotos.com provided the convenience of online photo services. And Lifetouch, whose store-within-a-store photo studios are located in JCPenney and Target stores, expanded their market into providing school pictures.

As technological trends and consumer behaviors and attitudes changed, CPI continued holding on to its own success model. In April 2013, with loan obligations of $98.5 million, CPI closed all U.S. locations. By June, competitor Lifetouch Portrait Studios, Inc. had entered a "stalking horse" agreement to purchase all CPI assets and awaited competing offers.

Photography and digital technology continue to evolve at an unimaginable pace, and consumers feel empowered in their abilities to now go beyond taking, sharing, and printing photographs to explore the design and manipulation and animation of photographs. As business competitors within the industry weigh their future, how will they pay attention and adjust their business strategies in order to remain viable and avoid the CPI fate?

CASE FOR ANALYSIS | The Paradoxical Twins: Acme and Omega Electronics[87]

Part I

In 1986, Technological Products of Erie, Pennsylvania, was bought out by a Cleveland manufacturer. The Cleveland firm had no interest in the electronics division of Technological Products and subsequently sold to different investors two plants that manufactured computer chips and printed circuit boards. Integrated circuits, or chips, were the first step into microminiaturization in the electronics industry, and both plants had developed some expertise in the technology, along with their superior capabilities in manufacturing printed circuit boards. One of the plants, located in nearby Waterford, was renamed Acme Electronics; the other plant, within the city limits of Erie, was renamed Omega Electronics, Inc.

Acme retained its original management and upgraded its general manager to president. Omega hired a new president who had been a director of a large electronic research laboratory and upgraded several of the existing personnel within the plant. Acme and Omega often competed for the same contracts. As subcontractors, both firms benefited from the electronics boom and both looked forward to future growth and expansion. The world was going digital, and both companies began producing digital microprocessors along with the production of circuit boards. Acme had annual sales of $100 million and employed 550 people. Omega had annual sales of $80 million and employed 480 people. Acme regularly achieved greater net profits, much to the chagrin of Omega's management.

Inside Acme

The president of Acme, John Tyler, was confident that, had the demand not been so great, Acme's competitor would not have survived. "In fact," he said, "we have been able to beat Omega regularly for the most profitable contracts, thereby increasing our profit." Tyler credited his firm's greater effectiveness to his managers' abilities to run a "tight ship." He explained that he had retained the basic structure developed by Technological Products because it was most efficient for high-volume manufacturing. Acme had detailed organization charts and job descriptions. Tyler believed everyone should have clear responsibilities and narrowly defined jobs, which would lead to efficient performance and high company profits. People were generally satisfied with their work at Acme; however, some of the managers voiced the desire to have a little more latitude in their jobs.

Inside Omega

Omega's president, Jim Rawls, did not believe in organization charts. He felt his organization had departments similar to Acme's, but he thought Omega's

plant was small enough that things such as organization charts just put artificial barriers between specialists who should be working together. Written memos were not allowed since, as Rawls expressed it, "the plant is small enough that if people want to communicate, they can just drop by and talk things over."

The head of the mechanical engineering department said, "Jim spends too much of his time and mine making sure everyone understands what we're doing and listening to suggestions." Rawls was concerned with employee satisfaction and wanted everyone to feel part of the organization. The top management team reflected Rawls's attitudes. They also believed that employees should be familiar with activities throughout the organization so that cooperation between departments would be increased. A newer member of the industrial engineering department said, "When I first got here, I wasn't sure what I was supposed to do. One day I worked with some mechanical engineers and the next day I helped the shipping department design some packing cartons. The first months on the job were hectic, but at least I got a real feel for what makes Omega tick."

Part II

In the 1990s, mixed analog and digital devices began threatening the demand for the complex circuit boards manufactured by Acme and Omega. This *system-on-a-chip* technology combined analog functions, such as sound, graphics, and power management, together with digital circuitry, such as logic and memory, making it highly useful for new products such as cellular phones and wireless computers. Both Acme and Omega realized the threat to their futures and began aggressively to seek new customers.

In July 1992, a major photocopier manufacturer was looking for a subcontractor to assemble the digital memory units of its new experimental copier. The projected contract for the job was estimated to be $7 million to $9 million in annual sales.

Both Acme and Omega were geographically close to this manufacturer, and both submitted highly competitive bids for the production of 100 prototypes. Acme's bid was slightly lower than Omega's; however, both firms were asked to produce 100 units. The photocopier manufacturer told both firms that speed was critical because its president had boasted to other manufacturers that the firm would have a finished copier available by Christmas. This boast, much to the designer's dismay, required pressure on all subcontractors to begin prototype production before the final design of the copier was complete. This meant Acme and Omega would have at most two weeks to produce the prototypes or would delay the final copier production.

Part III

Inside Acme

As soon as John Tyler was given the blueprints (Monday, July 13, 1992), he sent a memo to the purchasing department asking to move forward on the purchase of all necessary materials. At the same time, he sent the blueprints to the drafting department and asked that it prepare manufacturing prints. The industrial engineering department was told to begin methods design work for use by the production department supervisors. Tyler also sent a memo to all department heads and executives indicating the critical time constraints of this job and how he expected that all employees would perform as efficiently as they had in the past.

The departments had little contact with one another for several days, and each seemed to work at its own speed. Each department also encountered problems. Purchasing could not acquire all the parts on time. Industrial engineering had difficulty arranging an efficient assembly sequence. Mechanical engineering did not take the deadline seriously and parceled its work to vendors so the engineers could work on other jobs scheduled previously. Tyler made it a point to stay in touch with the photocopier manufacturer to let it know things were progressing and to learn of any new developments. He traditionally worked to keep important clients happy. Tyler telephoned someone at the photocopier company at least twice a week and got to know the head designer quite well.

On July 17, Tyler learned that mechanical engineering was far behind in its development work, and he "hit the roof." To make matters worse, purchasing had not obtained all the parts, so the industrial engineers decided to assemble the product without one part, which would be inserted at the last minute. On Thursday, July 23, the final units were being assembled, although the process was delayed several times. On Friday, July 24, the last units were finished while Tyler paced around the plant. Late that afternoon, Tyler received a phone call from the head designer of the photocopier manufacturer, who told Tyler that he had received a call on Wednesday from Jim Rawls of Omega. He explained that Rawls's workers had found an error in the design of the connector cable and taken corrective action on their prototypes. He told Tyler that he had checked out the design error and that Omega was right. Tyler, a bit overwhelmed by this information, told the designer that he had all the memory units ready for shipment and that, as soon as they received the missing component on Monday or Tuesday, they would be able to deliver the final units. The designer explained that the design error would be rectified in a new blueprint he was sending over by messenger and that he would hold Acme to the Tuesday delivery date.

When the blueprint arrived, Tyler called in the production supervisor to assess the damage. The

alterations in the design would call for total disassembly and the unsoldering of several connections. Tyler told the supervisor to put extra people on the alterations first thing Monday morning and to try to finish the job by Tuesday. Late Tuesday afternoon, the alterations were finished and the missing components were delivered. Wednesday morning, the production supervisor discovered that the units would have to be torn apart again to install the missing component. When John Tyler was told this, he again "hit the roof." He called industrial engineering and asked if it could help out. The production supervisor and the methods engineer couldn't agree on how to install the component. John Tyler settled the argument by ordering that all units be taken apart again and the missing component installed. He told shipping to prepare cartons for delivery on Friday afternoon.

On Friday, July 31, 50 prototypes were shipped from Acme without final inspection. John Tyler was concerned about his firm's reputation, so he waived the final inspection after he personally tested one unit and found it operational. On Tuesday, August 4, Acme shipped the last 50 units.

Inside Omega

On Friday, July 10, Jim Rawls called a meeting that included department heads to tell them about the potential contract they were to receive. He told them that as soon as he received the blueprints, work could begin. On Monday, July 13, the prints arrived and again the department heads met to discuss the project. At the end of the meeting, drafting had agreed to prepare manufacturing prints, while industrial engineering and production would begin methods design.

Two problems arose within Omega that were similar to those at Acme. Certain ordered parts could not be delivered on time, and the assembly sequence was difficult to engineer. The departments proposed ideas to help one another, however, and department heads and key employees had daily meetings to discuss progress. The head of electrical engineering knew of a Japanese source for the components that could not be purchased from normal suppliers. Most problems were solved by Saturday, July 18.

On Monday, July 20, a methods engineer and the production supervisor formulated the assembly plans, and production was set to begin on Tuesday morning. On Monday afternoon, people from mechanical engineering, electrical engineering, production, and industrial engineering got together to produce a prototype just to ensure that there would be no snags in production. While they were building the unit, they discovered an error in the connector cable design. All the engineers agreed, after checking and rechecking the blueprints, that the cable was erroneously designed. People from mechanical engineering and electrical engineering spent Monday night redesigning the cable, and on Tuesday morning, the drafting department finalized the changes in the manufacturing prints. On Tuesday morning, Rawls was a bit apprehensive about the design changes and decided to get formal approval. Rawls received word on Wednesday from the head designer at the photocopier firm that they could proceed with the design changes as discussed on the phone. On Friday, July 24, the final units were inspected by quality control and were then shipped.

Part IV

Ten of Acme's final memory units were defective, whereas all of Omega's units passed the photocopier firm's tests. The photocopier firm was disappointed with Acme's delivery delay and incurred further delays in repairing the defective Acme units. However, rather than give the entire contract to one firm, the final contract was split between Acme and Omega with two directives added: maintain zero defects and reduce final cost. In 1993, through extensive cost-cutting efforts, Acme reduced its unit cost by 20 percent and was ultimately awarded the total contract.

NOTES

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