



Cramer Electronics, Inc.

Cramer Electronics, headquartered in Newton, Massachusetts, was by 1976 the second largest distributor of electronic components to industrial customers in the United States. Cramer's sales had grown dramatically from the mid-1960s to 1970, at a compound annual rate of almost 22%. Since 1970, however, Cramer's sales and earnings had been erratic. The acquisition of Electronic Wholesalers, Inc. in 1971 caused difficulties, and the general recession in 1975 saw Cramer's sales fall 19% and profits fall 96% over 1974 levels. In the first half of 1976 sales and profits rose considerably, spurred by a combination of improved general economic conditions, better inventory management procedures, and reduced operating expenses.

Timothy X. Cronin, Cramer's president and treasurer, was optimistic that the company would return to its previous pattern of steady improvement. He predicted that growth would continue at 15%–20% annually for the electronic component distribution industry, and that Cramer would be able to grow at least as fast as the industry. As Cramer came out of the 1975 recession it was faced with the question of how best to capitalize on the substantial growth opportunities electronic component distribution offered. A specific question facing Cramer was what its future policy on microprocessors should be. Microprocessors were the latest technological innovation in active electronic components and represented an important potential source of sales and profits if properly managed. Cramer had experimented with the Cramer Kit, a self-contained microcomputer laboratory introduced in the fall of 1975, but the results had not been encouraging.

History

Cramer Electronics began as Hatry & Young, Inc., in the very early days of electronics. Hatry & Young was a small firm selling replacement parts to radio repair shops from a single location in downtown Boston, until Al Cramer bought the company in 1945 and renamed it Cramer Electronics. Members of present management characterized Mr. Cramer as "always good for a deal." He instituted an aggressive growth strategy for the company that included selling every electronic component or accessory he possibly could. He began buying up odd lots of electronic components on a distressed basis (usually obsolete or surplus inventory of other distributors or original equipment manufacturers) and selling them at profit margins substantially better than normal for a distributor. Mr. Cramer also expanded the company's market from retail customers to industrial concerns.

By 1962 Cramer Electronics had sales of \$5.4 million. It was large enough to warrant moving to larger quarters, in Needham, Massachusetts, and to interest the capital markets in supplying Cramer with equity financing. In December 1961 Cramer sold 250,000 shares of stock to the public at

Steven J. Roth, research assistant, and Parmelee Eastman, MBA 1976, wrote this case with Assistant Professor Michael E. Porter as a basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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\$8 per share. However, the achievement was marred by the untimely death of Mr. Cramer, who had suffered a fatal heart attack in September, at the age of forty-nine. His brother became president of the company, but lacked Al Cramer's leadership ability. The family decided to begin looking for a new chief executive officer, and Cramer Electronics's investment banker was selected to carry out the search.

Timothy Cronin was executive vice president and chief operating officer of Radio Shack when the search committee found him. Radio Shack was a major retail and industrial distributor of electronic components. Cronin was receptive to the idea of accepting Cramer's top management position, believing that his advancement at Radio Shack was blocked by recent strategic changes made by Radio Shack's president:

I liked Cramer because the fragmentation and dysfunctional competition which characterized the electronic component distribution industry offered an excellent opportunity for me to build a company which would be a major force in the business. My plan for doing this was through consolidating several of the large regional distributors into one national concern. The idea was to merge six to eight distributors into one firm with sales of \$60–\$70 million which would maintain one large central inventory of components in Chicago or Kansas City, link regional sales offices together with a computer-based telecommunications system, and use airfreight transportation to meet a 24-hour delivery goal. If I could do this, the combined company would have greater bargaining power with suppliers, would have better access to financing at lower interest rates, and would permit us to reach a "critical mass." In this industry there is a critical mass, which is approximately \$70 million in sales. This is the point at which a company can justify the need for and afford to develop and maintain sophisticated internal management and control systems. I thought the component manufacturers would welcome such a consolidation because of their desire to see a healthier distributing system develop.

Cronin developed pro-forma financial statements for the combined entity and visited the target companies that were to be a part of it. Unfortunately, his vision was not seen as clearly by others. It was with a trace of bitterness and regret that Cronin described the reactions of the company presidents he spoke with: "One guy told me he 'didn't need help from anybody to grow his company into the industry leader.' Another one 'couldn't even imagine giving up control of his business.' After this experience, I decided to build Cramer itself into a dominant force in the industry."

Cramer set out to achieve sales growth through geographic expansion into new markets. The strategy called for an orderly national rollout from Cramer's historical area of strength: New England. New stocking locations would be opened in new markets adjacent to existing markets until all significant U.S. markets were covered. Cronin believed this would permit Cramer's management to exercise maximum control over the business while it was growing. Cramer's first expansion move was into the New York City and Connecticut electronics market. In 1965, to take advantage of what Cramer's management felt was the best available opportunity, the company expanded its operations into Florida. If a particular market proved too competitive for Cramer to enter entirely on its own, the company acquired existing local or regional distributors in attractive competitive situations. For example, three small firms were acquired in 1969, one medium-sized firm was acquired in 1971, and another small firm was acquired in 1972.

During the middle and late 1960s Cramer's growth strategy yielded rapidly improving financial results. From 1966 to 1970 sales grew from \$20.5 million to \$54.3 million and net earnings from \$658,000 to \$1.5 million, representing compound annual growth rates of 21% and 17% respectively. Despite increased sales in 1971 and 1972, however, Cramer's profits declined substantially, to \$851,000 in 1971 and \$600,000 in 1972. Profits recovered somewhat in 1973 and 1974, but reached only 2% of sales after tax, well below the 3% rate experienced in the 1966–1970 period.

This modest success was short-lived, with 1975 proving to be Cramer's worst year for profits in over a decade. (See Exhibits 1, 2, and 3 for a summary of Cramer's financial performance.)

Cramer's management offered a number of explanations for the fluctuations in financial results. First, the acquisition of Electronic Wholesalers was supposed to expand Cramer's profile in the growing southeast U.S. market for electronic components. Electronic Wholesalers had been losing money during the five years before it was acquired, however, and turning its operations around proved slow and expensive. One senior manager blamed excessively slow inventory turnover for the earnings difficulties, while another believed Cramer had simply overcommitted its small management staff in trying to turn around a firm as large as Electronic Wholesalers, which meant less attention was given to the rest of its business.

A second cause for fluctuating results identified by management was a lack of emphasis on maintaining proper control of the business during Cramer's rapid growth phase. Until Cramer reached Cronin's \$70 million sales threshold, few problems had developed in handling the paperwork necessary to support the growing sales. Difficulties in control became evident in 1972, however, while management was still involved in the turnaround of Electronic Wholesalers. The problem included an inability to obtain relevant gross margin information on product lines, mounting delays in order processing that resulted in delayed shipments to customers, haphazard inventory management requiring time-consuming telephone calls between stocking locations to determine what inventory was at hand, and rising operating expenses in relation to sales. Cramer attacked the control problem on two fronts. First, management sought to streamline existing manual methods for order processing and inventory control wherever possible. Second, work was begun to develop a computerized system that could integrate the order processing, inventory management, and accounts receivable functions.

The 1975 recession had caught Cramer somewhat off guard, partially because of delays encountered in developing the computer system. During the 1973–1974 business upturn inventory had grown faster than necessary to support sales. Cronin expressed the feeling that 1975 had provided an opportunity for Cramer to finally and thoroughly "clean house":

The recession finally provided the stimulus for us to cut all operating expenses to bare minimums. We phased out over 500 clerical employees in operations during the year, and with the computer ready to come on-line in 1976, the size of clerical staff will not increase as sales pick up. We also closed out some of our unprofitable or marginal stocking locations, and raised the sales volume required to justify a stocking location from \$2 to \$4 million.

Cronin was confident that as Cramer moved out of the recession it was in an excellent position to maximize its future profits:

With excess inventories finally worked off, the computer system rapidly becoming operational, operating expenses reduced as far as possible, and a new \$30 million secured, three-year term loan successfully negotiated with a consortium of banks, we are looking forward to renewed 15% per year growth in sales, a return to stable profitability, and improved cash flow from operations.

Product Line

Cramer handled the broadest line of components of any distributor. There was unanimity among senior management about the long-term value of the broad-line concept to Cramer's growth and profits and its ability to differentiate itself from other electronic component distributors. The broad-line concept was expressed by key executives as one-stop shopping. Cramer's goal was to provide everything a customer would need to complete an electronic assembly. Therefore, Cramer

carried everything from microprocessors and programmable read only memories (PROMs) to resistors, connectors, spools of wire, fuse boxes and fuses, soldering guns, and solder (see box). A recent addition to the line was a complete microcomputer kit assembled by Cramer and called the Cramer Kit. In total, Cramer carried some 265,000 unique items purchased from 76 suppliers and divided into 96 distinct product lines. Prices for components in the line varied from a low of \$2 for 1,000 screws to a high of \$20 to \$200 for a microprocessor. The average value of an item carried in inventory was 25.7 cents.

Cramer's management believed that being a broad-line distributor gave it the following competitive advantages:

1. *Customer service.* Management believed that buyers were more likely to call Cramer knowing that they could satisfy a greater percentage of their buying needs at Cramer than at any other distributor. This was cited as a very important selling point for the field sales force. Cronin and other senior managers explained the concept as being similar to that of a supermarket. The customer who bought a low-margin traffic-building component would also buy a higher-margin accessory item.
2. *Differentiation.* Since distributors all sold essentially the same or very similar products, the broad-line concept enabled Cramer to differentiate itself from its competitors. Management believed this differentiation would result in greater customer awareness of Cramer's name, and therefore more telephone calls asking Cramer for quotes on component orders.
3. *Opportunities for growth.* Cramer's management believed that although smaller, more *specialized* distributors could show high returns for a few years, they quickly outgrew the particular market segments in which they operated and were forced to broaden their product line. As evidence of this trend, Albert J. Dinicola, executive vice president for sales and marketing, cited the recent expansion of Jaco Electronics, Inc. beyond its original specialty capacitors. Management believed that Cramer's broad line gave it access to a wider range of markets than other distributors had, which improved growth potential.

Major Product Areas

- Integrated circuits and semiconductors
- Tubes
- Controls
- Resistors
- Capacitors
- Transformers
- Relays
- Switches
- LEDs
- Miniature lamps
- Hardware
- Connectors
- Batteries and fuses
- Wire and cable
- Racks and cabinets
- Chemicals and tools
- Panel meters
- Test instruments

Of Cramer's 96 product lines, 26 were lines of major electronic components such as microprocessors, integrated circuits, capacitors, resistors, and connectors. These 26 lines represented about 80% of Cramer's sales volume. The 70 supplemental lines included such items as ground lugs, nuts, bolts, fuse boxes, pliers, and wire. These 70 lines were stocked only at the main warehouse in Newton, Massachusetts.

Customers

Cramer sold electronic components to approximately 45,000 customers in 1975. These customers ranged from industry giants, such as General Electric and Raytheon, to two-person engineering firms operating out of a garage or basement. Cramer's largest single customer accounted for about 2% of sales, with another 100 firms purchasing over \$100,000 in components annually. The remaining customers purchased from \$100 to over \$30,000 per year.

Customer purchasing behavior reflected the size and resources of the individual firms. In general, however, purchasing agents did not receive specific training for the job. Cramer's management characterized them as people with a high school education who had begun in the shipping room and had been promoted to purchasing. The larger, higher-volume customers had better access to market information through visits by sales representatives, the ability to support professional purchasing agents for components, and the requirement that multiple bids be solicited on most orders over \$500. The larger customers had been moving toward selective purchasing agreements with a few distributors over the last five years. Cramer's management was divided on how to react to this trend. Al Dinicola and Louis Backe felt that although the 15% gross margins typical on large customers' business were below the usual 25%, the business was available and accounts such as General Electric were "too important to lose." Others, including Cronin, believed that the purchase agreements gave everything away to the customer, yielding little or no profit to Cramer after inventory carrying charges, operating expense, and corporate overhead were considered.

The medium-sized customers tended to be less concerned with price and more interested in the distributor salesperson's knowledge of the product line and product availability. Management believed this was because buyers in medium-sized firms had access to little specific product information. In addition, they were often clerical employees who received no training whatsoever. It was with this type of buyer that Cramer's management felt personalities played a key role. Customers tended to develop a close personal relationship with Cramer's employees and often placed orders with Cramer for this reason.

The smaller customers were often as price-sensitive as the largest ones, since it was frequently the president or chief engineer who called Cramer to place the order. They also required more time and effort in extending and controlling credit privileges. Small accounts had to be monitored regularly to ensure prompt payment, to establish and adjust credit limits, and to negotiate extended credit terms if and when Cramer's management decided such extensions were warranted.

The last category of customer was the "walk in." These were individuals who came to Cramer's "will call" counter and purchased a bag full of components. One Cramer executive stated: "These people are a nuisance. Servicing these accounts (less than 1% of sales) creates work flow, accounting, and inventory management problems not offset by profits this business generates."

Cronin described what he believed were unique features of Cramer's long-term business relationship with customers:

As a customer's sales grow, so does the volume of components he purchases. As the purchases grow larger it becomes more economical to buy directly from the factory

and use Cramer only for the smaller rush orders. Cramer always loses the bulk of its customers' business, as they grow larger, to the manufacturer.

Suppliers had order-size maximums above which a distributor could not service an order without the supplier's involvement or at least its knowledge. Cramer management believed that it needed the cooperation of the supplier in large orders to ensure help in meeting delivery dates. In addition, the suppliers were allowed to see where Cramer's sales of their products had gone and would find out about large customers themselves. Cronin added a final consideration: "The customers will not let us get too big. Even in New England, our home area, we are only 30% of the market. The manufacturers want to have multiple distributors to compete for their business."

Suppliers

Cramer purchased components from the widest variety of suppliers in the industry, ranging from multimillion-dollar semiconductor firms to small wire producers. Its policy was to carry the products of all major component suppliers, regardless of any overlap in their product lines. Cramer's management believed that its relationships with its suppliers were as vital to Cramer's long-term success as its relationship to its customers. The current status of these relations was described as friendly aggression. Suppliers awarded and supported franchises, established a book price, which tended to be the maximum, provided funds for cooperative advertising, and participated in joint sales calls on the more promising customers. Suppliers were also valuable sources of information about future price fluctuations, changes in product lines, and the status of their competition. Cramer's management frequently talked with and visited the marketing and production managers of firms such as Texas Instruments and Sprague Electronics.

In the early 1970s Cramer had taken serious steps to trim its supplier base. These moves reduced the number of suppliers from 300 to 76. The majority of the terminated suppliers were smaller manufacturers of passive components. Management believed that the passive-component product lines had been firmly established as a commodity item in the mind of the customer. Therefore, Cramer saw no need to inventory the products of any but the best-known manufacturers. The decisions to discontinue product lines were made by Cramer's senior managers on the basis of factors such as current demand for the product. Timothy Cronin had been surprised by the reaction of some suppliers when Cramer told them their product lines were to be discontinued. Suddenly, several of these companies were prepared to give Cramer a higher gross margin and more flexible payment terms. Renegotiations resulted in retention of a number of suppliers who offered the best terms.

In 1975 Cramer's two largest suppliers were Texas Instruments and Motorola. Both supplied active components, and each accounted for 10% of Cramer's sales. Cramer's top 20 suppliers accounted for 73% of its sales, and included Intel among the active suppliers (see box). Franchises simply gave Cramer the right to officially stock and sell a supplier's product. Cramer's franchise agreements were not actual contracts specifying terms such as exclusive territories, volume minimums, and advertising support, although such items were often agreed to after informal negotiations.

Cramer was vulnerable to losing its franchise agreements with suppliers, and in one specific instance Cronin felt that Cramer's competitive position had been hurt by the loss of a franchise. In 1970, before Cronin shrank the supplier base, Fairchild Semiconductor dropped Cramer in response to Cramer's decision to carry Texas Instruments' product line. Fairchild proved to be one of the more dynamic growth companies in the active-component industry and the largest single product line of Cramer's primary rival, Hamilton/Avnet Corporation.

Cramer's policy of carrying several suppliers' product lines for the same type of component resulted in significant inventory duplication, especially in the passive-component lines. Although the

extent of the duplication was hard to pinpoint, management estimated that about one-third of the inventory was redundant. Management believed that the duplication was justified by some customers' preference for one product over another even though they had identical or almost identical performance characteristics. This preference was manifested in orders being placed for a specific supplier's component and not for the component's performance specifications per se. One Cramer executive said, "Certain companies have had good experience with a particular manufacturer and want to use only its components."

Top 20 Suppliers in 1975

- Advanced Micro Devices
- Allen Bradley
- Alpha Wire
- Amphenol
- Augat
- Bourns
- Burndy
- Cambridge Thermonic
- Corning Glass Works
- General Electric
- Intel
- ITT
- Motorola Semiconductor Products
- North American Philips
- Potter & Brumfield
- RCA
- Rotron
- Sprague Electronics
- Texas Instruments
- TRW

Distributor-supplier relationships were different for active and passive components. According to Cramer's management, passive-component suppliers were more flexible and cooperative than the active suppliers. The relative stability of the passive-product lines resulted in slower price changes, fewer new-product introductions, and less need for customer support from Cramer's sales force and product specialists. Cramer's management believed that the passive suppliers understood the services provided by distributors better than the active suppliers. The active manufacturers were fiercely competitive, and constantly falling prices plus the flow of new products in active components created business risks and management problems that Cramer did not feel it was being properly compensated for. In addition, the active suppliers were more insistent that the distributor maintain a local inventory of their components in each selling area and were more aggressive than passive suppliers in competing with distributors for larger orders. Prices were often negotiable, though within a fairly narrow range. One Cramer executive stated: "They say 15 cents apiece, we look at each other in shock and say 14.2 cents apiece, and two hours later we agree on 14.6 cents."

Cronin believed that a supplier might have the price of a component for a distributor who was important enough. Cramer's management hoped that the new computer would provide the management with information necessary to improve its bargaining position with the suppliers. This information was to include items such as gross margins and movement of components by stocking location.

Selling

Cramer employed some 170 field (outside) salespeople divided into eight regions and 26 divisions. Each division and region was supervised by a sales manager. The outside sales-people spent 90% of their time calling on the approximately 60 companies assigned to each of them. Cramer visited each of its 45,000 customers at least once during the year, and the 10,000 customers who bought something every month more frequently. Large customers such as Raytheon Corporation received even more attention.

As was true for most firms in the industry, Cramer's outside sales representatives did not take orders, nor did they quote prices. An outside salesperson promoted Cramer's product lines, its position as a broad-line distributor, and its 24-hour delivery capability.

Cronin described the sales representative's role: "The sales representative is someone who serves as a goodwill ambassador, taking buyers to dinner and ball games, maintaining an open, two-way communication between Cramer and the market, and serving as an expeditor for the customer." Sales representatives were compensated with a salary plus a commission based on the total order volume placed by their accounts.

Cronin and Dinicola both believed that an aggressive sales force was a key to gaining market share. In Dinicola's opinion one of the primary reasons for Hamilton/Avnet's recent success was that it had the most aggressive sales force in the business. Cronin was anxious to provide the Cramer sales force with more and higher-quality sales training. He spoke admiringly of the professionalism and thoroughness of the IBM sales representatives he had met. The average Cramer sales representative had a high school education and some previous work experience.

The inside sales force was where 99% of Cramer's orders were initiated, and it was equal in size to the outside sales force at 170 people. Each stocking location had its own inside sales force. This group's main responsibility was to respond to bid requests that came over the telephone from their accounts. Prices for components, especially active components, changed rapidly in response to technological advances, price-cutting by suppliers, and Cramer's ability to make deals in buying components for inventory.

Cramer's management believed that the inside sales force was as important as the field sales force. Cronin said:

The inside sales force's knowledge of the line and mastery of the mass of minor information about the line makes these individuals invaluable to our marketing effort. This knowledge of the line is the ability to serve as a reliable information resource to the customer about such topics as what other components can perform the same functions for less money, which suppliers have been experiencing quality control problems recently, what future price changes might be, and what new products are scheduled to be released.

Both the inside and the outside sales force were divided by specific customer accounts. This organizational structure was very similar to that used by other distributors and had been in use at Cramer for some time. The inside sales force had little or no technical education or experience and received limited training at Cramer. Like the outside salespeople, they were required to service the entire scope of Cramer's product line.

Cramer's management believed that the inside salesperson's knowledge of the intricacies of the product line was the main reason certain customers bought from Cramer. Customers' specific needs were manifested in their phone calls with the inside salespersons. Small accounts frequently required more of the inside salesperson's time than did medium or large accounts. Compensation for

the inside sales force was primarily salary, although small commissions were given based on the percentage of volume placed by the individual, and achievement of the sales budget for particular product lines.

Cramer also employed a staff of 60 product specialists responsible for managing the profitability of each product line. The product specialists controlled decisions such as what level of inventory to maintain, the proper mix of items within the product line to order, when to reorder components, and, within strict limits set by top management, how much gross margin to trade away for sales volume. The product specialists were not engineers and enjoyed little specific technical training. They were usually former buyers who had gained their knowledge through many years of business experience with a particular component line. Product specialists were paid primarily on straight salary, with some opportunity for bonuses.

The product specialists were occasionally used to mobilize retaliation against a competitor's moves. Dinicola cites Jaco Electronics to illustrate the point:

Jaco decided that since capacitor technology was very stable and well defined, capacitors should be treated exactly like a commodity. They adopted the philosophy that "a capacitor was a capacitor" and began filling orders for a particular manufacturer's capacitor with anything that equaled that component's technical specifications. To the surprise of many industry people, including us, the customers accepted this practice because of Jaco's low prices. In reaction to Jaco's competitive threat, Mr. Cronin found an executive with many years' experience in the capacitor business, hired him as our capacitor product manager, and placed responsibility for combating Jaco on his shoulders.

Promotions and Advertising

Cramer's promotion and advertising fell into three general categories: the Cramer catalog, price promotions, and trade magazine and newspaper advertising. Every year to 18 months Cramer published a 700-page buyer's guide that listed most of the products the company sold. Cramer's management felt that the catalog was very useful in supporting the company's image as a broad-line distributor. Catalogs were given to customers by Cramer's field sales force and mailed to customers, if requested, from the Newton office.

Promotions were held frequently to push the product line of a particular supplier or to strengthen sales of a weak product line. For example, Cramer and Motorola would plan a month-long promotion designed to boost sales of Motorola semiconductors to Cramer's customers. Manufacturers supported the promotions with independent and cooperative advertising. Promotions were usually accompanied by banners, slogans, and occasionally hats for the inside salespeople to wear. When answering the telephone the salesperson would say, "Hello, Cramer-Motorola." The inside salespeople would try to encourage accounts to purchase Motorola products if at all possible. Normally only one promotional campaign was held at a time.

Advertising at Cramer was almost entirely cooperative advertising with the major component suppliers. The manufacturer established a cooperative advertising fund equal to one-half of 1% of its sales through Cramer. For the majority of Cramer's suppliers, sales volumes were too small to generate an advertising budget large enough to be useful. Most ads were placed in the large industry publications, such as *Electronic News*, with the supplier's prior approval. (Figure A displays a sample Cramer ad.) Dinicola said: "The role of advertising in distribution is to create enthusiasm for the company and convey a sense of activity to the customer. The specific benefits of advertising are hard to measure but I feel sure that putting Cramer's name before the public is a positive move for the company."

Pricing

Pricing was a particularly sensitive area for Cramer, and indeed all distributors. The suggested book price lists, published by both the active- and passive-component manufacturers, set the maximum price a distributor could normally charge for the component. Dinicola said: "The inside salespeople are often tempted to give the components away at a 15% gross margin to make the sale. Insuring that a sufficient gross margin is recovered on each sale is vitally important to Cramer's profitability, and a prime target for improvement."

Figure A Advertisement from 1976 Buyer's Guide

At 10:43 a.m. Peter Doucet, Inside Salesman at Cramer/Newton, got into analytical instruments.

Peter didn't have to get into them that weekend. He wanted to. You see, Pete's typical of Cramer's dedicated professionals.

Service comes first. "Sorry, closed for annual inventory" comes second. So when the call from Baird Atomic (Scientific and Nuclear Instruments manufacturer) came in, Pete went right into action.

Baird Atomic needed 3 power transistors for three very expensive systems due to be shipped that day. But they had to be Motorola transistors. And they had to be received that same day.

Hours later, Baird Atomic had their transistors. Motorola, of course. Because fortunately Pete knows his stock like he knows his customers.

Naturally, if Cramer/Newton did not have a quality line like Motorola in stock, Pete would automatically call another nearby Cramer distribution center in our \$40,000,000 inventory network for an immediate air shipment.

So if you feel like your present component supplier is putting things like "sorry, we're closed" ahead of your needs, call us. You'll always come first. No matter if you're large or small. Computer, communications or aerospace manufacturer. Name it. We've got 1,400 more around the country like Pete Doucet ready to get into your business.

cramer
Our most important component is service.

Source: Company documents.

The computer program was designed to help protect the gross margin of every item Cramer sold by rejecting any order that fell below the prescribed minimums. Before a rejected order could be

booked, the salesperson had to receive authorization from a more senior member of Cramer's sales or product management group. This program was expected to be operational in the very near future.

When an order became large enough to command the interest of a component supplier, the bidding became very competitive. In some instances Cramer and a supplier would work together, bidding against another distributor/ supplier team, with Cramer getting a certain amount of price protection from the supplier. The process was usually initiated by Cramer when a customer received a bid at a price too low for Cramer to match. Cramer then contacted a competing manufacturer and asked if it wanted to "buy" the business at the reduced price with Cramer acting as the sales agent. If the manufacturer agreed and the Cramer team won the bid, the manufacturer billed the customer at the reduced price, and the difference between Cramer's normal price and the actual sales price was credited to Cramer's account against future purchases. Cramer's management estimated that its margins on the large orders were only around 15%. In general, Cramer sought to match competitors' prices but not undercut them, with Cronin believing that the component market was not particularly price-elastic.

Operations

Cramer was a "paper factory" processing some one million orders and shipping some two million packages per year. Cramer had been hurt by its inability to process orders efficiently, and this was the primary reason for the current investment in automation.

The warehouse system was an integral part of Cramer's order-processing operations. Cramer maintained two major stocking locations, twenty-nine smaller stocking locations, and four centers for connector assembly. Fifty percent of Cramer's inventory was located in Newton, Massachusetts, 25% was located in Irvine, California, and the remaining 25% was spread over the 29 regional warehouses. The inventory carried by the regional warehouses was limited to the 26 major product lines. The remaining product lines were stored primarily at Newton (a small quantity was kept at Irvine) and sent to either the customer or a regional warehouse upon request.

Cramer was in the process of linking its stocking locations through a computer-based communication system. The system would be able to track every component in Cramer's inventory, show the inside salespeople exactly what was available for shipment, and reorder a component once the inventory dropped below a minimum level.

Cramer's experience with computers had not been trouble-free. Once the decision to computerize had been made in 1970, Cramer contracted with its accounting firm, Arthur Andersen and Company, to do the systems development work. It quickly became apparent that Andersen's design could not support the type of system Cramer wanted, and the contract was terminated.

After this disappointing initial experience, Cramer's management decided to build an internal systems and programming capability, and to maintain strict control over the systems development effort. It took three years for Cramer to finish its in-house systems development and begin to feel the impact of computerization in its daily operations. The computer system cost between \$1.5 and \$2.0 million per year to operate.

Financing

Cramer was one of the few major distributors of electronic components that was publicly held. Ownership of Cramer's stock was divided among several major groups and the general public. The Cramer family held 21%; most of this was held by Al Cramer's widow. Another 23% was held by Loeb, Rhoades & Co., which maintained a position on the board of directors. Of Cramer's top

management, Timothy Cronin owned 6% and Albert Dinicola owned 15,000 shares (or .7%). The remaining 49.3% of Cramer was publicly held but very thinly traded.

In early 1976 Cramer's stock had been trading at about \$3 per share, compared with the initial price of \$8. Cramer's management anticipated the Cramer family would eventually have to sell all or part of its holdings for tax and estate purposes. The specific timing of such a move would depend somewhat on Mrs. Cramer's health and age. Matthew Burns, chief financial officer, reflected on the difficulties distributors faced with the financial markets: "Our low stock price is indicative of the fact that the distribution industry has never been a stock market favorite and that industrial distribution is even less understood than distribution in general."

In October 1975 Cramer had entered into a three-year revolving loan and security agreement with a four-bank consortium, with First National City Bank acting as the lead bank. The agreement permitted Cramer to borrow up to \$30 million in short-term debt at the rate of $2\frac{3}{4}\%$ above Citibank's prime commercial lending rate. The loan was backed by all of Cramer's inventory and accounts receivable and certain cash accounts. In addition, the loan placed certain restrictions on Cramer's business flexibility. Stephen C. Stuntz, assistant vice president, finance, had been the individual most involved in negotiating the details of the loan agreement and was responsible for working with First National City Bank on a continuing basis; he spoke:

The loan agreement has been as much of a learning experience for the banks as for Cramer. The banks had limited experience with and understanding of distribution in general and industrial distributors specifically. We have to file daily sales, inventory, and accounts receivable reports with the bank in addition to weekly and monthly summary reports. I am hopeful that as the banks become more familiar with us and our business, the loans will move from a secured to an unsecured basis, adding some flexibility to our financing alternatives.

The subject of improved inventory management as a source of funds was of great importance to Cramer. If the investment in inventory in relation to sales could be reduced over the next five years, bank debt would be reduced, interest charges would drop, and profits would increase. In Burns's words, "In this business inventory turns are where the action is." It was Cramer's hope to use the computerized inventory management system it had been developing to increase inventory turns from 2.8 to 4 times per year over the next five years.

Competition

Cramer's management found it difficult to pinpoint any single distributor as being Cramer's competition. Dinicola believed that all distributors were competitors because of Cramer's broad-line strategy and geographic dispersion. Cronin also believed that Cramer competed with a wide group of firms: "We compete with other broad-line distributors on service and product availability, with regional firms on sensitivity to the needs of the local market, and with specialized distributors on price and expertise on a specific product line." Hamilton/Avnet was the distributor Cramer followed most carefully, however, because of the similarity of some elements of its strategy to Cramer's, and Hamilton/Avnet's very dramatic growth in the early 1970s.

Until 1972 Hamilton and Cramer had been approximately the same size, but by 1975 Hamilton had sales of \$206 million versus Cramer's \$122 million. Cramer's management attributed Hamilton's success to a number of factors. Dinicola believed that Hamilton's association with Avnet resulted in the following advantage: "Avnet has given Hamilton easier access to capital, thereby permitting Hamilton to expand more rapidly. The extra aggressiveness of Hamilton's sales force may well be due in part to Hamilton's reduced financial exposure."

Cramer's management also attributed Hamilton's success to its greater specialization in semiconductors and connectors. These two lines were very important for very different reasons. Semiconductors had been the fastest growing segment of the business over the past five years and now accounted for about 55% of Hamilton's sales. Connectors had always been a profitable product line for distributors because of the assembly work they did. Hamilton did some \$20 million of connector business in 1975, while Cramer did not do very much business in connectors. Timothy Cronin also believed Hamilton's operating philosophy, geographic concentration, and size contributed to its success:

Hamilton has always paid excellent attention to the control side of its business and had avoided some of the problems we encountered. As far as I know, Hamilton still uses a manual system and has had no plans to computerize. Their ability to control is aided by the fact that they carry fewer lines than we do. Tony Hamilton [Hamilton's president] is basically a simple guy who runs an uncomplicated business. He has found an excellent match between his personality and distribution, since this is a business of fundamentals.

Hamilton also did some \$50 million of semiconductor business in National and Fairchild components that Cramer did not carry in 1975. (In July 1976 Cramer began selling Fairchild semiconductors again.)

Hamilton had concentrated on the larger markets for electronic components, especially semiconductors, such as Southern California, Chicago, and Dallas-Houston. Cronin believed that as a Southern California-based company, Hamilton had been able to capture a dominant share in the fastest growing semiconductor market in the United States. In contrast, Cramer was far more spread out across the country. In 1975 less than 1% of Cramer's sales had come from the Dallas-Houston area, which was one of the Big Eight electronics markets. Cronin hoped to correct this situation in the very near future. Finally, Hamilton was often a manufacturer's number one distributor and used its size to gain purchasing leverage. For example, Cramer believed that Hamilton gained almost a full 1% additional purchase discount from suppliers. In addition, Hamilton would occasionally negotiate a very good price on a large order for a customer. Hamilton would then buy more items than the customer needed and place the surplus in its own inventory for resale at the higher market price.

Cronin believed that Hamilton would continue to be a leader in the electronic distribution industry following essentially the same strategy as before, although Cramer's management anticipated some broadening of Hamilton's product line over the next few years. Cronin's outlook for most of the other top 25 distributors was far less optimistic; he expressed his opinion:

I expect concentration in the industry to continue and perhaps accelerate, forcing more smaller firms out of business. The business will probably stabilize with four or five large, broad-line national distributors pulling away from the pack, some regional firms in the larger markets, and a few product-line specialists. A lot of the smaller firms have yet to be tested at the \$70 million threshold. Some just won't be able to make the transition. I wouldn't be surprised to see several mergers occur.

Cronin did not see the end of the small garage distributors in the industry, however. The low investment in plant and equipment meant that people could always enter as long as they were able to find a source of components. Cramer's management felt that such firms would be an annoyance and little more. With respect to the expected Japanese semiconductor manufacturers' entrance into the U.S. electronics market, Cronin said, "They are not here yet."

The Microprocessor

The microprocessor presented a major strategic question for distributors in 1976, and Cramer reflected the indecision in the industry. Cramer hoped that this latest technological innovation would be a major source of sales growth in the years ahead. The growth would come from both direct microprocessor and auxiliary hardware component sales as well as the increased use of electronic rather than mechanical devices in existing products. Cramer's management was divided, however, on the role of a distributor for a \$20 item against what was traditionally a 20-cent item.

Dinicola and Backe, company vice president, pointed to the microprocessor as a singular opportunity to use creative marketing in the distribution industry. Dinicola believed strongly that if Cramer could find a way to bring some degree of standardization to the microprocessor's usage then it could gain a dominant position in this newest and fastest-growing product line. After considerable thought and with the help of an outside consultant, Dinicola decided on the concept of the Cramer Kit. The kit was to be a complete microcomputer laboratory including microprocessor, packaging board, memories and other necessary peripheral devices, testing and debugging programs, documentation and schematics, software, microcomputer dictionary, and two free hours at any one of a series of Cramer microcomputer design centers to be established across the country.

The kit was priced to sell at just under \$1,000, compared with a cost of \$1,750 if all the pieces were purchased separately. In late 1975 the first advertisements for the Cramer Kit were run in the leading industry journals. The initial response was far greater than any one at Cramer would have believed possible. Some 55,000 people sent in the response card included with the ad.

Dinicola decided to follow up each response card with a visit by a field salesperson. The sales force suddenly found itself dealing with professional engineers rather than purchasing agents, who asked technical questions that went far beyond the ability of the salesperson to answer. In addition, a sales call often lasted several hours, resulted in no Cramer Kit sales, and caused the sales force to fall behind in its regular activity. The follow-up calls were terminated very shortly after they began. The 55,000 responses resulted in sales of only 500 Cramer Kits. Dinicola was disappointed with the response:

I made a mistake in not screening the responses before spending the salespeople's time on site visits. I had forgotten how "gadget happy" the electronics industry was. However, my initial feelings about the kit remain unchanged and I think this first attempt at creative marketing was a good learning experience for me.

In the late spring of 1976 Dinicola went back to the consumer with the four-page color advertisement and a formal screening procedure to process inquiries. He spoke: "Although I can't qualify it, Cramer has gained substantial publicity from the kit. I am convinced that additional business has and will result from the kit as the electronics community learns more about us."

Cronin held a very different opinion. He viewed the kit as a good idea that was wrong and a distraction for the company:

Cramer has done little more than put together a "sack of parts" and try to sell it using a sales force that could not and would not be able to back it. The \$100,000 we invested in setting up microcomputer centers has been a waste. I would probably faint if I ever saw an engineer in the Newton microcomputer center.

Cronin had definite opinions about the future of the microprocessor:

Cramer should treat the microprocessor the same as any other electronic component. Distributors were in the business of selling pots and pans, not ovens, and

our microprocessor adventure was most definitely a distraction for management. I do not feel that the task of customer education can be shouldered by the distribution industry. I want to see the manufacturers of microcomputer components invest money in education; that is where the investment should come from.

For the present Cronin was willing to let Cramer continue promoting the Cramer Kit. However, progress of the kit was to be measured continuously until a reevaluation was completed. Cronin summarized his opinions by stating: "The microprocessor was so revolutionary that the industry fell in love with its potential. But now that so many companies, big and small, have lost so much money trying to promote its use we have to rethink our position."

Future Plans and Goals

Cramer's goals for the next three to five years were to return the business to stable and growing profitability, resume sales growth at about the industry rate of 15% per year, keep fixed costs (especially personnel) from rising as sales volume increased, and continue the gradual phasing in of additional computer applications. Cronin presented Cramer's goals in greater detail:

Our goal is to increase Cramer's profits after tax from its average level of the last five years of about 1.2% of sales to 4%. I think this profit goal is obtainable if Cramer can accomplish a number of tasks. First, we need to complete the computerized margin monitoring and inventory management systems. Second, I plan to hire a strong chief financial officer. Third, we need to improve the effectiveness of the sales force by more professional sales training. Fourth, we must improve the productivity of the inside sales and support personnel through a careful examination of every facet of Cramer's operations, and then develop and implement a plan of action designed to correct or improve the deficiencies. Finally, we have got to improve the product management group. We are not as good as Hamilton in this area, and I want to see a much more aggressive and dynamic group develop in the next few years.

Cramer's management was considering several major strategic alternatives for the future, which it did not believe were mutually exclusive but would each demand considerable management attention to be successfully carried out.

Market penetration versus market expansion. Cramer was a national distributor but had not achieved the presence it felt it should have in all of the major U.S. electronic markets. Cronin recalled that at the very beginning of his career in distribution he was told that the eight major markets were the key to success. Cramer had stressed geographic coverage in the past and could continue to follow this strategy by selectively making additional acquisitions in new market areas. Cramer was trying to increase its share of the larger markets through special sales campaigns and by opening new stocking locations and sales offices. Cramer's management believed that penetrating such markets could be slow and costly. The stiff competition that characterized business in Boston, Los Angeles, or Chicago made "buying market share" expensive, whereas it was easy to buy a location in Seattle.

Future status of regional stocking locations. The computer system, Cramer's WATS line telephone network, and the growth in cities served by air transportation seemed to finally permit Cramer to realize Cronin's concept of a national distributor with one central inventory. The willingness of Cramer's customers to accept the change was still debatable, however. Cronin said:

There is a cult that holds regional is beautiful and national is nasty. Some customers are comforted by the knowledge that their distributor has a local inventory, and the regional distributors play this for all it's worth. The customer always wants to know he can have his order delivered today even though he doesn't need the parts for three days.

Cramer was uncertain whether its competitive position would be damaged by converting its regional stocking locations to just regional sales offices sometime in the near future.

Private label branding. Cronin was very anxious to explore the possibility of entering into a contractual agreement with a passive-component manufacturer to bring out a product line bearing Cramer's name. He spoke:

Passive components such as capacitors have very stable technology and are enough of a commodity item to permit this concept to work. We would buy components at the traditional discount given to original-equipment manufacturers, about 20% below what we buy them for, and then sell them for 5% less than the other capacitor lines we carry. In this fashion we could keep the 15% difference plus our standard margin, with little further investment required. This strategy has been most successful for supermarkets, and I don't see why it couldn't be transferred to the distribution of industrial components. No manufacturer could refuse to accept a single order for \$3 million in capacitors from a major national distributor.

Purchasing management company. Cramer had discovered growing interest among the larger purchasers of electronic components in negotiating long-term supply contracts with distributors. Dinicola was very interested in seeing Cramer become more active in this new business area: "Our real expertise is in the buying, holding, and shipping of high-unit cost, low-weight items. These supply contracts are a natural extension of our skills. The new computer system would permit the inventory related to a specific supply contract to be segregated with relative ease."

Cronin was rather uneasy about the benefits of these contracts. Although they provided a relatively stable sales and profit base, the companies usually forced a very hard bargain on the distributors. Cronin was uncertain about taking a 15%–20% margin even if the level of sales was high.

Such contracts might involve either a large purchaser of electronic components desiring to consolidate its distributor base, or a company that paid a fee for Cramer's ability to buy, hold, and deliver the components needed to meet its production schedule. In the former case, a firm such as General Electric would seek to decrease the price it paid for components purchased from distributors by dealing exclusively with six or seven national firms. In the latter case, a smaller manufacturer would be seeking to minimize capital by purchasing components only as they were needed for production.

Vertical integration. Cronin was interested in exploring the possibility of selective vertical integration at some future date: "To take an example, why shouldn't we have our own wire plant? This would entail some risk and require management skill that we don't presently possess. But if distributors in other businesses could successfully vertically integrate, then we should be able to do it as well."

Exhibit 1 Ten-Year Income Summary, 1966–1975 (\$ millions)

<i>Ending September 27</i>	<i>1975</i>	<i>1974</i>	<i>1973</i>	<i>1972</i>	<i>1971</i>	<i>1970</i>	<i>1969</i>	<i>1968</i>	<i>1967</i>	<i>1966</i>
Net sales	\$122,038	\$151,051	\$121,805	\$88,211	\$60,137	\$54,261	\$43,653	\$33,007	\$24,338	\$20,036
Cost of sales	<u>92,249</u>	<u>113,769</u>	<u>91,766</u>	<u>67,631</u>	<u>44,886</u>	<u>40,367</u>	<u>32,564</u>	<u>24,646</u>	<u>18,241</u>	<u>15,383</u>
Gross income	29,789	37,282	30,039	20,580	15,251	13,898	11,088	8,360	6,097	4,653
Selling, general and administrative	<u>26,033^a</u>	<u>27,551</u>	<u>22,544</u>	<u>17,876</u>	<u>12,493</u>	<u>10,033</u>	<u>8,022</u>	<u>6,045</u>	<u>4,366</u>	<u>3,356</u>
Operating income	3,756	9,731	7,495	2,703	2,758	3,860	3,066	2,315	1,732	1,297
Interest expense	<u>3,518</u>	<u>3,340</u>	<u>1,880</u>	<u>1,550</u>	<u>1,197</u>	<u>1,088</u>	<u>502</u>	<u>309</u>	<u>176</u>	<u>111</u>
Income before federal income tax	238	6,391	5,615	1,153	1,561	2,772	2,564	2,006	1,556	1,186
Federal income tax	<u>117</u>	<u>3,239</u>	<u>2,875</u>	<u>553</u>	<u>710</u>	<u>1,261</u>	<u>1,281</u>	<u>991</u>	<u>733</u>	<u>565</u>
Net income	\$121	\$3,152	\$2,740	\$600	\$851	\$1,511	\$1,283	\$1,015	\$823	\$621

^a. Included a \$126,000 loss on currency translation from foreign operations.

Exhibit 2 Ten-Year Consolidated Balance Sheet Summary, 1966–1975 (\$ millions)

Year Ending September 27	1975	1974	1973	1972	1971	1970	1969	1968	1967	1966
Assets										
Current assets										
Cash	\$2,776	\$2,773	\$1,429	\$1,167	\$432	\$777	\$1,265	\$840	\$462	\$571
Accounts rec. (net)	18,247	22,936	11,950	16,979	13,220	10,256	7,036	4,265	2,902	2,377
Amounts due from vendor	696	—	—	—	—	—	—	—	—	—
Inventory (FIFO or market)	35,366	44,671	29,671	25,656	18,734	16,302	12,865	8,518	6,195	4,443
Prepaid expenses	540	172	495	368	419	721	449	158	101	92
Total current assets	57,625	70,552	51,545	44,170	32,805	28,055	21,615	13,779	9,661	7,983
Property, plant and equipment										
Land	1,083	1,078	—	—	—	—	—	—	—	—
Buildings	3,894	2,536	2,302	2,283	2,277	2,264	793	—	—	—
Furniture, equipment	2,268	1,983	1,736	1,728	1,510	942	922	—	—	—
	7,245	5,597	4,039	4,011	3,787	3,206	1,741	690	454	374
Less accumulated dep. and amortization										
	(1,940)	(1,589)	(1,326)	(1,230)	(975)	(495)	(387)	(268)	(158)	(113)
Net property, plant and equipment	5,305	4,007	2,713	2,782	2,812	2,711	1,327	422	296	261
Goodwill	204	241	277	323	209	296	388	—	—	—
Other assets	268	247	247	542	657	111	125	138	32	37
Total assets	63,401	75,047	54,971	47,817	36,483	31,173	23,455	14,340	9,988	7,782
Liabilities and Stockholders' Investment										
Current liabilities										
Notes payable to banks	18,765	23,853	14,083	14,000	8,500	8,500	5,453	3,250	2,550	1,850
Current maturities of long-term debt	1,539	490	619	498	87	92	39	—	—	—
Accounts payable	11,863	17,869	10,445	8,129	3,540	4,136	4,330	2,711	1,560	1,172
Accrued liabilities	1,439	1,440	787	604	457	297	348	216	179	128
Accrued income taxes	79	1,417	2,500	—	—	506	655	466	568	411
Total current liabilities	33,684	45,068	28,384	23,231	12,584	12,531	10,825	6,643	4,857	3,561
Long-term debt (net)	8,567	8,902	8,508	9,129	9,165	5,275	4,570	1,750	750	750
Excess of underlying book value of net assets of subsidiary acquired over cost of parent's investment										
	44	130	217	272	163	—	—	—	—	—
Stockholders' investment										
Common stock	2,166	2,105	2,045	1,977	1,894	1,675	1,389	624	576	541
Premium paid in common stock	9,118	9,027	8,834	8,444	7,705	5,926	2,754	1,474	823	627
Retained earnings	10,380	10,469	7,704	5,501	5,532	5,398	4,622	3,848	2,982	2,293
	21,634	21,601	18,583	15,922	15,731	12,999	8,766	5,947	4,381	3,471
Less										
Treasury stock (at cost)	(267)	(262)	(250)	(250)	—	—	—	—	—	—
Deferred compensation	(291)	(393)	(471)	(486)	(559)	(632)	(705)	—	—	—
Equity	21,106	20,947	17,862	15,186	14,572	12,367	8,060	5,947	4,381	3,471
Total liabilities and stockholders' investment	\$63,401	\$75,047	\$54,971	\$47,817	\$36,483	\$31,173	\$23,455	\$14,340	\$9,988	\$7,782

Exhibit 3 Consolidated Statements of Changes in Financial Position, 1971–1975 (for the five years ended September 27, 1975)

	1971	1972	1973	1974	1975
Working Capital Was Provided By:					
Operations					
Net income	\$851,015	\$600,195	\$2,740,085	\$3,151,898	\$20,993
Depreciation and amortization not requiring the use of working capital	317,797	352,909	375,414	405,659	451,899
Utilization of acquired tax loss carry-forwards	85,118	205,378	40,517	—	—
Amortization of the difference between the book value of subsidiaries acquired and the cost of parent's investment, net	<u>(23,800)</u>	<u>(48,852)</u>	<u>(48,852)</u>	<u>(51,027)</u>	<u>(49,200)</u>
Total from operations	1,230,130	1,109,630	3,107,164	3,506,530	523,692
Proceeds from long-term debt	4,000,000	132,348	—	884,569	1,357,200
Fair value of shares issued in connection with purchased business	1,269,856	161,772	—	—	—
Working capital and other net assets acquired in excess of cost of purchased business	188,069	—	—	—	—
Proceeds from the exercise of stock options	<u>20,358</u>	<u>38,116</u>	<u>—</u>	<u>—</u>	<u>—</u>
Total working capital provided	<u>6,708,413</u>	<u>1,441,866</u>	<u>3,107,164</u>	<u>4,391,099</u>	<u>1,880,892</u>
Working Capital Was Used For:					
Additions to property, plant and equipment	330,968	234,583	218,853	1,606,581	1,673,710
Reduction of long-term debt	109,740	168,565	620,671	491,279	1,691,826
Purchase of treasury stock	—	250,000	—	11,890	5,000
Other	<u>183,046</u>	<u>71,003</u>	<u>161,546</u>	<u>(40,358)</u>	<u>53,296</u>
Total working capital used	<u>623,754</u>	<u>724,151</u>	<u>1,001,070</u>	<u>2,069,392</u>	<u>3,423,832</u>
Net Increase (Decrease) in Working Capital	<u>6,084,659</u>	<u>717,715</u>	<u>2,106,094</u>	<u>2,321,707</u>	<u>(1,542,940)</u>
Increase (Decrease) in Working Capital					
Cash	(345,115)	734,967	262,285	1,343,185	3,802
Accounts receivable, net	3,267,799	3,758,941	2,971,434	2,985,842	(4,689,137)
Amount due from former vendor	—	—	—	—	696,320
Inventory	2,432,266	6,921,518	4,015,366	15,000,162	(9,305,615)
Prepaid expenses	<u>(218,031)</u>	<u>(50,621)</u>	<u>151,499</u>	<u>(322,977)</u>	<u>367,717</u>
Increase (decrease) in current assets	<u>5,136,919</u>	<u>11,364,805</u>	<u>7,400,584</u>	<u>19,006,212</u>	<u>(12,926,913)</u>
Notes payable to banks and current maturities of long-term debt	(5,618)	5,910,848	204,259	9,641,226	(4,039,226)
Accounts payable	(595,545)	4,588,556	2,316,581	7,423,201	(6,005,939)
Accrued liabilities	129,529	116,521	293,791	652,953	(1,001)
Accrued income taxes	<u>(476,106)</u>	<u>31,165</u>	<u>2,479,859</u>	<u>(1,032,875)</u>	<u>(1,337,807)</u>
Increase (decrease) in current liabilities	<u>((947,740)</u>	<u>10,647,090</u>	<u>5,294,490</u>	<u>16,684,505</u>	<u>(11,383,973)</u>
Net Increase (Decrease) in Working Capital	<u>\$6,084,659</u>	<u>\$717,715</u>	<u>\$2,106,094</u>	<u>\$2,321,707</u>	<u>\$(1,542,940)</u>

Source: Company annual reports.