McKesson Drug Company: A Case Study of Economost—A Strategic Information System

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ABSTRACT: There has been considerable attention paid to competitive and strategic information systems. Few cases, however, have been studied and presented in detail. McKesson’s order entry and distribution system, Economost, is one of the most widely cited strategic information systems, with wide acceptance; nearly 100% of McKesson’s orders are entered electronically by customers. Impact on customers, and on McKesson’s costs, has been favorable and dramatic. Similar systems are now widely available from major competitors; the effect of such systems on the industry, and on industry consolidation, has also been significant. But differential competitive impact on McKesson is more difficult to establish.

KEY WORDS AND PHRASES: Strategic information systems, strategic use of information, information systems case studies.

1. Introduction

In recent years there has been considerable attention paid to strategic and competitive uses of information systems. In addition to numerous articles in newspapers and the popular press [1, 9, 10, 24, 27], there have been academic publications [2, 3, 4, 5, 11, 14, 23, 26, 29, 31], texts, and professional and academic conferences.

There is a limited number of public and well-known success stories in the literature of strategic uses of information systems, and these same stories are reported time and time again. McKesson Drug Company, because of its Economost system, is among the most widely cited examples of strategic information systems [1, 3, 4, 6, 9, 10, 12, 27, 30]. Unfortunately, many of these reports used only secondary sources. We feel that there is considerable benefit to retelling the Economost story yet again, this time from the perspective of those actively involved in its development and daily use.

Revolutionary changes in an industry, of which we believe Economost to be an example, may affect any of the following:

— the competitive position of the innovating firm, including its profitability and market share relative to its competitors;
— the industry as a whole, including profitability and concentration;
— suppliers; and
— customers.

We believe Economost to be a strategic system, with impact on all four dimensions listed above. Surely, McKesson’s market share and its profitability have improved since the introduction of Economost. But we believe the largest impact of electronic order entry systems in wholesale drug distribution has been on the industry itself, rather than on any one of the major players. That is, these systems radically changed cost structures, relationships with customers, and the way that distributors do business, resulting in renewed industry growth and dramatically improved industry profitability. These benefits appear to have accrued primarily to the large national and regional players, such as McKesson and Bergen Brunswig, who can exploit the economies of scale and scope enabled by the technology. However, it is not clear that these systems have provided any one company with profitability superior to similar competitors. Moreover, we maintain that many of the benefits that resulted from Economost and related systems were passed on to the drug wholesaler’s customers.

2. Economost—McKesson Drug Company’s
Electronic Order Entry and
Customer Support Systems

2.1 Economost Systems—Order Entry

McKesson’s family of information systems for the support of retail pharmacies is led by Economost, its electronic system for direct customer order entry.¹
An Economost customer orders by making a single pass through his store with a hand-held order entry device, noting from the available stock on his shelves which items need reordering. Some customers use a bar-code scanner to capture the identifying numbers of items to reorder; the majority of customers key McKesson's seven-digit identifier into the hand-held device. Shelf tags also indicate a default reorder quantity, which is usually used by clerks; often the pharmacist or a senior employee will override the default quantities. When the complete order has been entered, the customer transmits the order via McKesson's 800 WATTS line to McKesson's national data center in Rancho Cordova, California. Order entry could not be much simpler.

The same or following day, McKesson delivers the items ordered. The requested items come delivered in cartons that match the aisle arrangement and major departments of the drug store; no sorting is required and the shelves can be restocked with a single pass. Price stickers are provided, and the customer has the option of specifying numerous retail pricing options: prices can be fixed; prices can reflect a fixed gross margin percentage, for the pharmacy or for individual departments; and prices can but need not reflect temporary manufacturers' discounts. Moreover, when prices change, replacement stickers are provided so that the pharmacist can, if he chooses, reprice existing shelf stock.

Service levels are very high: 93% of over-the-counter items and 99% of pharmaceutical items receive next day delivery.

Clearly, routine operation of the drug store could not be made much easier. Order entry is greatly facilitated, as is restocking. One pharmacist we spoke to, who operates a small but very busy drugstore in San Francisco, estimates that order entry and shelf restocking used to require a full-time clerk; it now requires half a day to order and less than half a day to restock the shelves. And, as expensive as drugstore inventory may be, for this pharmacist the cost of space is even higher in the high-rent San Francisco Embarcadero. In consequence, other than for manufacturers' sales and promotions, he keeps no inventory other than shelf stock; McKesson's reliable next-day service eliminates his need for maintaining inventory. Significantly, none of the drugstores we visited seemed to maintain safety stocks or inventory beyond that needed to stock their shelves.

Electronic order entry has been extremely well received by McKesson's retail customers. More than 99% of McKesson's orders come in electronically, either through Economost or Econotone.

McKesson also provides the retail pharmacist with valuable management control information, much of which would be too expensive for an independent to provide for himself. A monthly "Management Purchase Report" is available to all Economost customers; it shows what items have been ordered and the prices at which they have been sold, and indicates profit margins for items, departments, and the pharmacy as a whole.

Although the order entry system is the most publicized and the most visible of McKesson's offerings, several other systems are available for retail pharmacies; many are provided on an a la carte basis, with additional services supplied for
additional fees. A vast and comprehensive range of services is available:
—A wide selection of additional management reports can be purchased. For example, a monthly report is available that details items purchased on which manufacturers are providing advertising allowances; these reports can be worth hundreds or even thousands of dollars to the pharmacist. The druggist can also submit starting inventory and monthly sales information to McKesson and receive monthly inventory control reports.
—The Valu-Rite line in many ways enables the independent pharmacist to obtain the benefits of a chain. 2
—A consulting service is available that can help choose a location, help design a pharmacy, and even provide shelves and fixtures.
—Additional retail services, such as drugstore credit card systems, third party claims processing, and pharmacy terminal systems, are also available through McKesson. 3

McKesson also offers services targeted toward the specialized needs of different market segments. For pooled purchase organizations (PPOs), McKesson will provide purchase reports and compliance reports aggregated over the organization, as well as at the member store level. In 1986, McKesson also introduced a complete hospital management system for hospital buying groups. In fact, at McKesson today, “value-added services are now a profit center. With current pressures on distribution companies, more and more of the profit for a distribution company must come from value-added services” [7]. 4

2.2 McKesson’s Internal Operations and Internal Optimization

McKesson’s internal organizations have been designed to optimize distribution costs to the greatest extent the company could achieve. In today’s environment, with marked economies of scale, that has meant increased centralization.

A customer’s Economost order is transmitted by telephone to McKesson’s Drohan Data Center in Rancho Cordova, California, where it is captured by one of the company’s Tandem computers and acknowledged, including order confirmation number, by voice synthesizer units on each modem. 5 These orders are manipulated slightly, batched, and passed to the data center’s IBM 3090 mainframe. At regular intervals, regional distribution centers (RDCs) pull their orders from the mainframe.

Today’s RDCs appear a model of efficiency: Orders are burst out to several pickers, one or more from each region of the warehouse. Pickers walk through the warehouse, pushing “totes” on rollers and filling them. Warehouse shelves are arranged to correspond to pharmacy departments and laid out to minimize the walking of shelf pickers: the most frequently required items are up front at waist height, while slower moving items are less conveniently located.

The RDC minicomputer runs the entire operation. It produces invoicing information, bar-code order identification labels, and price tags/pick lists for each tote. The
bar-code labels on the outside of totes are used by computer sorting and routing equipment, which directs each tote to its appropriate location on the assigned truck.

Even truck routings have been rationalized. When a large warehouse services a concentration of distant customers not sufficient to warrant its own warehouse, large ‘‘mother trucks’’ are sent to switching centers, where they are then broken out into several smaller trucks for local delivery. Of course, the mother truck is loaded in reverse, so that when the smaller trucks are loaded stock is in the correct order for their delivery schedules.

2.3. McKesson’s Relationship with Customers

McKesson’s Economost system provides numerous benefits for retail customers:
— reduced transaction costs—the labor costs associated with placing and receiving an order;
— reduced costs—reduced wholesale prices, including larger discounts for ordering through Economost;
— reduced inventory holding costs associated with reduced physical inventory and reduced space required to maintain this inventory;
— management support, including the full spectrum of additional value-added services available for purchase.

We had expected that most of these benefits would be found to be the direct result of electronic order entry. In fact, this was only partly correct; many of the benefits results simply from rationalizing operations in preparation for Economost. For example, customers now order once or twice a week instead of five, ten, or more times; this must reduce order entry and shelf-stocking expenses.

And again, we had originally expected that reduced transaction costs would explain the rapid adoption of Economost, and real customer switching costs would explain the retention of Economost accounts. Neither expectation was fully supported by our study. Sales staff and customers alike assured us that, while reduced transaction costs were certainly attractive, it was Economost’s discounts that prompted customers’ adoption and volume-sensitive discounts that drove them to bring the vast majority of their business to McKesson. Nor did switching cost appear to be the reason for remaining with Economost: a switch to Bergen-Brunswig would involve a day or two at most of relabeling and data entry, and the full cost would be absorbed by Bergen.

In fact, both customers and the regional sales manager agreed that the biggest cost of leaving Economost would be leaving McKesson’s people. Customers who had worked with both claimed that McKesson and Bergen had equivalent order entry systems. The difference, they felt, was the quality of McKesson’s human relationships with their accounts.

2.4. Analysis: Benefits of Economost to McKesson

Clearly, Economost has produced numerous benefits for McKesson:
— Economost supports rapid, reliable, and cost-effective customer order entry.
The number of order entry clerks employed by McKesson has been cut from 700 to 15.
— Sales personnel are no longer principally order takers. They can be used actively, as business consultants to the retailers. Additionally, the number of sales personnel has been cut in half, while orders have increased six-fold.
— Since orders are captured in machine-readable form, Economost provides a platform for providing services for the retail pharmacist, from price tags for shelf stock through sophisticated management reports.
— An additional use of machine-readable information is the optimization of McKesson’s daily warehouse operations. Productivity of warehouse staff has increased at a rate of 17%, compounded annually, for the decade 1975 through 1985, yielding almost a fivefold increase.
— Purchasing has been rationalized. Fewer purchasing agents, and the resulting power of the consolidated orders they place, give McKesson considerable bargaining power.
Perhaps the most visible benefit is the increased tying of the customer to McKesson, resulting in a larger share of the customer’s business. This allows increased sales and increased operating margins for McKesson, since order processing and delivery costs are spread over larger orders.
The total impact of these factors on McKesson has been dramatic. From 1975 to 1987, McKesson drug’s sales have increased 424%, from $922 million to over $4.8 billion, while operating expenses have increased only 86%.8


3.1. Structure of the Industry: Wholesalers
In 1974 the wholesale drug distribution industry was extremely fragmented. As many as 180 distributors competed for over 50,000 customers [21]. And customers were shared among several distributors. It was common even for a small independent pharmacy to order daily from two or more distributors.
Productivity was low and costs were high: McKesson, for example had over 100 regional warehouses, with stock in each laid out in an alphabetic arrangement. Customer orders arrived with items in random sequence. Filling customer orders was therefore slow and labor intensive, with a great deal of wasted time and motion. Purchasing and order entry staff were duplicated at each warehouse. Moreover, margins were also higher than today, resulting in prices that were high enough to encourage direct distribution by manufacturers.
3.2. Structure of the Industry: Retailers

In 1974 there were over 50,000 retail pharmacies, divided among over 40,000 independents and 10,000 chain stores. The chains enjoyed several advantages:

—Lower purchasing costs: The chains were able to negotiate better prices with large distributors. Moreover, they purchased a larger percentage of their goods direct from the manufacturer, again resulting in lower prices.

—Economies of scale: While the independents had few employees other than the expensive pharmacist, a large chain store would have several inexpensive clerks, lowering average labor costs.

—Better management and better management information.

As a result of these advantages, the chains enjoyed substantially higher growth and somewhat more attractive profit margins. Additionally, saturation of the retail pharmacy market and the resulting extreme competition were reducing everyone’s profit margins. One consequence of this is that independents were losing ground in the industry: whereas in 1974, 58% of drugstore sales were through independents, by 1985 only 40% of sales went to the independents [21]. This trend was particularly threatening to McKesson and the other distributors, since chain stores tended to order more directly from manufacturers and less from wholesalers.

3.3. Introduction of Electronic Order Entry

Economost, McKesson’s electronic order entry system, was a direct response to the competitive pressures facing the company. One motivation, of course, was to reduce costs and to tie the retail pharmacy closer to McKesson, both fairly standard responses in a competitive industry. The other motivation, however, appears more unusual. McKesson’s principal customers were the independent pharmacies, and they were failing; Economost therefore was aimed at giving them many of the advantages enjoyed by the chains, enabling them to compete better, and thus preserving the market served by McKesson.

McKesson originally had several expectations for Economost when it was initially rolled out as a national program:

—Ordering and delivery costs would be cut by reducing the number of weekly orders from each customer and increasing their size. Service levels were not as high as today, and customers were placing one or more small orders each day; with Economost, customers were encouraged through discounts to place one or two orders each week.

—Warehouse costs would be reduced by improving the design of warehouses and reducing labor costs. Moreover, by using the information captured by Economost to direct operations, warehouse costs could be further reduced dramatically.

—Customers would be tied to McKesson by increasing their benefits as the size of their orders increased. McKesson decided not to share customers with other distribution companies. To gain benefits of scale and to pass these benefits to customers required that customers choose McKesson as their primary or sole distributor.
—Numerous additional beneficial services would be provided to customers, for additional fees.
In essence, the idea was to provide real savings for McKesson and to pass most of these through to McKesson’s customers.

3.4. Origin of Economost
Between 1970 and 1975 McKesson used Economost only on a limited basis. It was a short-line system, used for ordering only the most popular and rapidly moving items in McKesson’s inventory. It was used only in northern California, where it was operated in competition with McKesson’s regular sales force.
The decision was made in 1975 to adopt Economost formally, to roll it out nationally, and to use it as the preferred mechanism for capturing customers’ orders with McKesson. This was of course a major decision, with considerable impact on McKesson’s customers, sales force, and operation. Ultimately it would require a massive investment in computer technology for all the distribution centers. This decision was not made lightly.
McKesson’s controller, after initial evaluation, decided that the Economost system was a very bad idea and requested that David Malmberg, currently Director of Strategic Planning, McKesson Corporation, prepare a formal operations research model to demonstrate how bad the economics of the system were. Malmberg’s model did not support this conclusion; in fact, the economics of the system looked very attractive. After some additional analysis, the adoption decision was made.
Most predictions of the model appear to have been validated. However, in all likelihood, if senior management had understood the disruption and organizational turmoil that were to result initially from introduction of Economost, the system might never have been adopted.


4.1. Structure of the Industry: Wholesalers
The most striking change in wholesale drug distribution over the past decade has been a marked increase in concentration in the industry. In the early 1970s there were 180 wholesale drug distributors. By 1986 their ranks had been decreased to 90, a reduction of fully 50%.11 The share of the two largest distributors increased from 30% to 45%. The share of the five largest increased from less than 40% to 65% [16]. And perhaps most significant is the change in the size of the second through fourth largest players, none of which was a full national competitor in 1974: their share of the market increased from 20% to 37.5% [16].
Note that this concentration occurred at a time when the industry was growing rapidly. Sales increased by a factor of 4, from $3.6 billion in 1974 to $14.3 billion in 1985 [22].

Much of this concentration has been by acquisition. Bergen-Brunswig and Fox-Meyer are major firms created by merger or acquisition. Even McKesson’s market share of 27% in 1985 reflects the 7% share of Spectro; without acquisition McKesson’s share would not have been appreciably different in 1985 from what it had been before the introduction of Economost.13

A second major change in wholesale drug distribution has been the decreasing share of direct distribution by manufacturers. In 1974 distributors supplied 45% of the ethical pharmaceuticals ordered by pharmacies while manufacturers supplied the rest; by 1985 this figure was up to 60%, increasing by half [25]. This trend continues today, with Proctor & Gamble the most recent addition to the list of manufacturers choosing to distribute through McKesson.14

We are tempted to attribute both of these effects—increasing industry concentration and decreasing direct distribution by manufacturers—to the introduction of electronic order entry systems.

We are confident that both effects are due to the intense competitive pressures in the industry. Pressures on the pharmacies translated into cost pressures on their suppliers, their distributors, and their manufacturers. Economies of scale in efficient warehouse operations and distribution, driven by data obtained through electronic order entry, led to industry concentration. And economies of scope, in supplying pharmacies with hundreds, even thousands, of items weekly, led to the decrease in direct distribution; however, margin advantages enjoyed by the distributors are wafer-thin, and without the warehouse efficiencies made possible by electronic data capture it is doubtful that this trend would have emerged. Thus, at least indirectly, both observed effects may be attributed at least in part to the advent of direct customer order entry.

These structural changes have been accompanied by dramatic changes in the economics of the drug distribution industry. Operating expenses as a percentage of sales decreased from 10.5% in 1976 to 6.3% in 1985, a 40% reduction [22]. Much of this dramatic productivity improvement was passed on to customers in the form of lower prices: gross margins decreased 30%, from 12.2% in 1976 to 8.5% in 1985 [22]. However, the drug distribution industry did retain a significant portion of these improvements. Return on net worth climbed from 9% in 1976 to over 15% in 1984, closely paralleling the adoption of electronic order entry and related systems within the industry [22]. Again, we believe that much of this improvement in industry productivity and profitability is due to information technology.

It is interesting to note what is not seen: while the profitability of the entire industry has improved dramatically, it is not obvious that any player has obtained "competitive advantage," that is, persistent high profitability relative to competitors. McKesson does not appear to enjoy substantially higher profitability than other large national and regional competitors, nor do the major competitors in the industry seem to enjoy significantly greater profitability than do smaller players. This inabil-
ity to discern above-average returns for any one player may be due to the confounding effects of different lines of business, reporting standards, and quality of data.

It is possible that the comparative advantages of the large, technically sophisticated players is only beginning to translate into profitability advantages. In 1985, the drug distribution industry as a whole suffered a profitability decline as pressures on gross margin exceeded the industry's ability to reduce operating costs. Return on net worth decreased to under 12% from over 15% the year before [22]. The large, publicly held competitors did not appear to be as adversely affected. It is too early to say whether this is a random occurrence, or the beginning of a trend.

4.2. Structure of the Industry: Retailers

Comparing retail pharmacies in 1985 with the prevailing situation in 1974, one is immediately struck by the improved fortunes of the independents. While their numbers have been reduced from 40,000 to 34,000 and their market share is down from 58% to 40% [21], this erosion is not as serious as was predicted in 1974. The most surprising fact that emerges from an examination of retail pharmacies today is their continued existence and their continued profitability.

When assessing the role of distribution companies in supporting the continued existence of independent pharmacies, we are again tempted to attribute much of this effect to systems like Economost. Surely the continued health and profitability of independents is due to their improved competitive position with regard to costs, and surely a large portion of this is in fact due to the savings offered to them as a result of electronic order entry and the benefits these systems provided to the distributors.

4.3. Strategic Necessity

Probably the single most important effect of systems like Economost is that they "change the rules of the game" [17]. They change the "table stakes," significantly increasing the investment needed to compete as a major player in drug distribution.

A massive investment in technology is now required of all national competitors. The initial national roll-out of Economost took two months and less than a man-year of improvement to an existing pilot program, and this move represented an investment of less than $50,000. Since 1975, between $20 million and $30 million has been invested in software alone for Economost and related services. These systems currently employ 40 full-time software engineers, 28 of whom are involved in new systems development [8].

Those companies that have not been able to develop equivalent systems or that have chosen not to invest in them appear to have been placed at a tremendous disadvantage. We refer to such systems as strategic necessities [3, 4].

Consolidation of the distribution industry is one predictable consequence of the changing rules of the game [3]. With massive new investments required, and signifi-
cant economies of scale possible, options for smaller players were:
—find a niche,
—get acquired,
—grow by doing the acquiring,
—exit the business, either by milking and liquidating or by failure.
Each option, of course, was exercised by some player.
McKesson grew both by internally developed volume increases and by acquisition; market share increases, however, appear largely attributable to acquisition. McKesson was the only national player in the early 1970s; several of today's other major competitors were minor regionals whose growth may be attributable to their rapid adoption of sophisticated systems.

5. Summary of Operations

A visitor to McKesson's warehouse, sales force, and customers is immediately struck by how very well run everything is:
—Customers praise the quality of McKesson's service, particularly the reliability of systems and the quality of sales support. Damaged and defective merchandise is removed promptly; credits are fast.
—Hourly warehouse employees seem enthusiastic, alert, and conscientious.15
—And, of course, productivity gains have been enormous. The number of warehouses has been cut in half. Inventory turns seven times a year, so fast that it is generally owned less than two weeks after payment is made to the manufacturer. Despite over a sixfold increase in sales, telephone order clerks are down from 700 to 15, sales staff is cut in half, and national purchasing staff is down from 140 to 12.

The Thomas Drohan Data Center in Rancho Cordova is an excellent example of McKesson's commitment to quality and reliability. Technology in many cases is the most advanced available, including network monitoring facilities, help desks, and voice synthesizers in each modem to acknowledge orders. Orders are captured via Tandems, industry standard for reliable real-time systems; backup Tandems are on-line, off-site. Power distribution units, transformers, emergency generators, and backup battery systems are fully duplexed. Alternative routings to telephone company central offices are available, in case of failure of the Sacramento central office facilities. Clearly, McKesson does not intend to undergo any avoidable downtime of its order capture or order distribution facilities.

Planning is under way for the next generation of super-warehouses. These massive structures are 600,000 square feet, almost twice the size of existing warehouses, and will integrate inventory and warehouse operations for several of McKesson's business lines: drug distribution, veterinary supplies, service merchandising, and office supplies. The first pilot is currently being planned for Phoenix.

And yet, in all probability, a visitor to Bergen-Brunswig would have very similar impressions:
Bergen-Brunswig is a good company. We view them as a very good competitor. [18]

Customers we spoke to at chain stores and independent pharmacies said that Bergen-Brunswig's systems were largely equivalent. Although they believed that McKesson enjoyed an advantage, they attributed it largely to the quality of their personnel.

Some benefits to McKesson and its industry are clear:
—Independent pharmacies are still in business.
—Direct distribution by manufacturers is down and is continuing to drop.
—Profitability is up.

6. Summary and Conclusions

The drug distribution industry appears to be brutally competitive. Several similar major regional and national players are competing, placing pressure on margins. Moreover, potential profits of drug wholesalers are capped by their position in the distribution chain:
—Powerful suppliers, mostly major national manufacturers, will move back into direct distribution if they believe returns for the distributors are excessive. [16]
—Powerful chains, hospitals, and pharmacies cooperating with health maintenance organizations (HMOs) and PPOs will increase their direct business with manufacturers if distributors cannot provide merchandise at lower prices than manufacturers; many of these parties have significantly less need of McKesson's additional value-added services since they have their own internal management control systems. [17] Both conditions cap distributors' profits.
—The independent pharmacies also have a strong bargaining position with McKesson, paradoxically due not to their strength but to their weakness. If the prices they are charged rise significantly, many of them will fail in competition with aggressive and well-run chain stores. This, too, limits the potential profits of their suppliers.

McKesson, with Economost, and competitors like Bergen-Brunswig with their equivalent offerings appear to be doing as well as possible in the competitive environment. Traditional industrial economics would predict limited profit margins in this situation, and this seems to be borne out by the available evidence. At least for this industry, information technology, skillfully and aggressively applied, seems to be strategic necessity rather than a source of competitive advantage.

Possible threats to McKesson's core business in pharmacy wholesale distribution may be emerging:
—Increasing use of point-of-sale (POS) terminals at checkout, and the reports that can be prepared using the data captured, will reduce the importance of McKesson's value-added management reports.
—Regional competitors are forming wholesale buying groups to match the buying
power of McKesson and the other majors.

The large drug distributors are countering these threats by constantly improving their efficiency and the value-added services offered. McKesson believes that, even with large, sophisticated customers, there will always be specialized services the wholesaler can offer more efficiently than in-house systems. Current examples include management reports for PPOs aggregated over all member firms and specialized electronic links to in-house systems, which McKesson provides for several large chains and hospital buying groups. The economies of scope and scale, the technical sophistication, and the distribution expertise of the wholesalers may be extremely difficult to duplicate.

McKesson and competitors are also looking to gain additional benefits from their distribution expertise. McKesson has been diversifying into other distribution businesses, to benefit from existing expertise. Additionally, McKesson is developing giant warehouses, supporting several lines of business. As noted earlier, the first pilot is in the planning stage; it is much too early to assess the impact of their integration strategy.

Of course, McKesson has developed an enormously effective comparative advantage in order entry, customer service, and cost-effective distribution, if they can find other, less well managed areas of distribution in which to compete. It is clear from moves into veterinary supplies, general merchandise, beverages, and business supplies that this is recognized by McKesson and that appropriate opportunities are being pursued. Perhaps in other industries, competitive advantage and the extraordinary returns associated with such advantage may be obtained.

Notes

1. The basic electronic order entry features of Economost are also provided under McKesson’s Econotone system. Econotone customers do not receive the monthly purchase report or discounts based on volume and delivery frequency that are provided under Economost. Currently, virtually all McKesson customers order electronically, although only about 54% of McKesson’s 22,000 customers are Economost users.

2. Through Valu-Rite McKesson offers its pharmacies house-brand merchandise and access to several thousand promotional items at reduced prices. This is intended to serve as a virtual franchise.

3. Some of these services are provided through separate McKesson subsidiaries such as 3PM. However, the McKesson Drug account representative frequently identifies prospects and coordinates the marketing and delivery of the service.

4. This is in keeping with recent trends in service industries. As profit margins are squeezed by increasing competitive pressures and decreasing prices, more and more services are being offered for additional fees.

5. It is an indication of the quality and reliability of McKesson’s order-processing system that the majority of customers do not wait to receive their confirmation numbers.

6. Within five years of the system’s being released nationally, about half of McKesson’s customers were ordering electronically, through either the Economost or the Econotone systems. Currently, virtually all McKesson’s 22,000 customers order electronically, about 12,000 through Economost. According to Tom George [8], the speed of adoption was more limited by McKesson’s ability to convert customers than by low demand for the system.

7. Once again, our expectations were not fully supported by our findings. We had
expected, and earlier reports had indicated, that systems like Economost would increase switching costs. Since McKesson could convert a Bergen-Brunswick customer in a day or two, and Bergen could do the same for a McKesson customer in comparable time, clearly these order entry systems cannot be said to create massive customer switching costs. In fact, the same technology that appears to create switching costs may actually eliminate them: McKesson's systems allow a former Bergen customer to temporarily use his old Bergen stock numbers until a complete conversion can be made; these numbers are automatically converted into the corresponding McKesson codes.

8. These numbers reflect only McKesson Drug Company's drug wholesaling operations [8].

9. In 1974, the average independent had a profit margin of 3.9%, while the average chain had a profit margin of 4.8% [13, 20].

10. In fact, independents were slowly exiting the industry: from 1974 to 1985, the number of independent drugstores decreased from over 40,000 to just under 34,000 [21].

11. These numbers refer to membership of the National Wholesale Druggist Association (NWDA), which accounts for 98% of industry sales. According to Bruce Siecker (NWDA Research Director), there are approximately 200 short-line and specialty distributors not included.

12. An alternative view of the industry is provided by the U.S. Census of Wholesale Trade. According to census figures, there were 2,759 wholesalers supplying $6.5 billion in drugs and proprietary (SIC—Standard Industrial Classification—5122) in 1972. In 1982, the number of firms remained essentially unchanged at 2,726, while industry sales had climbed to $18.6 billion.

13. McKesson argues that it has indeed increased market share of independent retailers, the most important segment for drug distributors.

One of the difficulties of analysis like that attempted in this case is the large number of potentially confounding variables that must be considered. It is essential to note that in the period from 1966 until 1982 McKesson Drug Company was operating under a consent degree that prohibited growth by acquisition.

14. Note how this counts some earlier predictions. It was expected that the increasing use of customer order entry and of interorganizational ordering systems would decrease the role of distributors [e.g., 3, 5, 19].

15. We were particularly impressed by an event we noticed in the Sacramento warehouse. We were assured by the director of warehouse operations that it was mathematically impossible for totes to get out of sequence for delivery to a truck; this seemed implausible at best, and we were delighted when in a casual inspection of the warehouse we discovered a few totes flowing to a truck out of sequence. By the time we gathered up colleagues to show off our find, however, the truck was once again in perfect order. The driver overheard our discussion and said cheerfully, "Of course it happens occasionally. Part of my job is to make sure nobody ever finds out!"

16. To compete with distributors, manufacturers must be willing to match the massive investment in warehouses, technology, and inventory. They also must compensate in some way for the scale and scope advantages the large wholesalers enjoy. These factors appear to yield significant barriers to forward integration by the manufacturers.

17. This statement, of course, is not universally true. For example, many HMOs and PPOs do not have integrated management systems that can provide the information required to negotiate purchase contracts and monitor compliance among member organizations; drug distributors are in an excellent position to provide this information. Nevertheless, we believe increasing systems sophistication of major customers will limit the profitability of such specialized value-added services.

References


28. Siecker, Bruce. Private interview.