Market
Analysis
Program
(MAP)

Industry Sector Markets 1991-1996

Wholesale Distribution Sector

Forecast Update

INPUT®

1280 Villa Street, Mountain View, CA 94041, (415) 961-3300

DECEMBER 1991

INDUSTRY SECTOR MARKETS 1991-1996

WHOLESALE DISTRIBUTION SECTOR

FORECAST UPDATE

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I

Purpose and Organization

The purpose of this Forecast Update is to provide the 1991 INPUT forecast for the wholesale distribution industry sector together with a discussion of recent market issues and competitive factors that are influencing this industry. In the 1990 report, a more comprehensive analysis of the components of the wholesale distribution sector was presented and should be used as a reference if necessary.

The wholesale distribution industry is composed of establishments classified under the following SIC groups:

- 501 - Motor Vehicles and Automotive Equipment
- 502 - Furniture
- 503 - Lumber and Construction
- 504 - Sporting Goods and Toys
- 505 - Metals and Minerals
- 506 - Electrical Goods
- 507 - Hardware, Plumbing and Heating
- 508 - Machinery and Equipment
- 509 - Miscellaneous Durables
- 511 - Paper and Paper Products
- 512 - Drugs and Sundries
- 513 - Apparel, Piece Goods and Notions
- 514 - Groceries and Related Products
- 515 - Farm Products
- 516 - Chemicals and Allied Products
- 517 - Petroleum and Petroleum Products
- 518 - Beer, Wine and Other Distilled Beverages
- 519 - Miscellaneous Nondurables

This chapter of the report describes its purpose and organization. The other chapters are organized as follows:

- Chapter II—Trends, Events, and Issues—describes the current status of the wholesale distribution industry market and factors that can have an impact on its use of information services.

- Chapter III—Information Services Market—presents information services expenditures by delivery mode and submode for the U.S. wholesale distribution market.

- Chapter IV—Competitive Environment—provides a review of recent competitive events, and vendor profiles.

- Appendix A—Definitions—refers the reader to INPUT's separate volume of industry definitions.

- Appendix B—Forecast Data Base—gives a detailed forecast by delivery mode and submode for the wholesale distribution industry. It also contains a reconciliation to the previous year's forecast.

Related to this wholesale distribution sector report are three additional sector reports:

- Retail Distribution
- Business Services
- Banking and Finance

A collection of all 15 INPUT market sector or industry reports and 7 cross-industry reports constitutes INPUT's 1991 Market Analysis Program. Together, they provide a complete overview of the U.S. information services industry.

II

Trends, Events, and Issues

A
Environment and Market Changes

The wholesale distribution business has suffered in general from the problems in retail business during the past few years, but some sections have suffered more than others.

- Wholesale distributors serving a number of industries—including apparel, shoes, appliances, furniture and home construction—have been impacted severely by poor sales.

- Wholesalers handling drugs and medical supplies or serving some areas of the electronics industry and the auto aftermarket are reporting better conditions. The auto aftermarket is reporting better sales than other areas to support the increased sales volume of used cars.

There are mixed conditions in some wholesale areas.

- Suppliers to electrical contractors in metropolitan areas where firms are rewiring buildings or offices to meet changes in business needs, including expansion as well as downsizing or contraction, are finding a fair to good level of business.

- In areas where electrical contractors depend mostly on new buildings, including residential housing, wholesalers are finding much less business in general.

Overall, retail inventories are high. They rose 1.5% in September, 1991, which was the largest increase in three years. As a result, retail distributors are reducing orders from manufacturers and/or scheduled deliveries from wholesalers.

Wholesale distributors serving the retail market profited from the high level of retail sales in the mid 1980s, but began to experience a fall-off or delay in orders by 1988 or early 1989, particularly from department and other general merchandise stores.

In addition to the impact of the falling retail sales volume, some wholesale distributors are also suffering from changes in distribution channels. One such change, the development/growth of warehouse clubs or hyperstores to help cut costs, is having a marked impact on some wholesalers.

- A number of small construction firms and other establishments are now using the new combination retail/wholesale stores such as The Home Depot to obtain supplies for their work. These stores combine warehouse-like storage of items, a large inventory and prices that are just as low or lower for these buyers than the prices of the wholesalers they formerly used.

- The Price Club is one of these wholesale/retail suppliers. This chain serves anyone who pays a low fee to become a member. These stores are like warehouses with bulk amounts of food that are sold to restaurants and individuals and bulk amounts of office supplies and consumer goods that are sold to individuals and small businesses.

- Costco Wholesale is another venture that sells to restricted members such as credit union members and certain employee groups, as well as to small businesses, directly from warehouses.

The types of stores described above are classified as retail and wholesale SICs or only wholesale SICs. They represent an attempt by wholesale-type businesses to be less subject to business conditions among a narrow range of customers by taking business away from retail establishments and other wholesalers.

Wholesalers in agricultural industries, such as ConAgra and CPC International, also moved into consumer goods in the 1980s in order to be less subject to falling wholesale demand and fierce competition. Cargill is now attempting to follow that example.

Wholesalers serving the manufacturing market profited from the increased output in this market sector during the 1980s, but many of them are now suffering from decreased manufacturing in the auto, steel, consumer durables and other industries.

Reduced business and inventory that remained in wholesalers' warehouses for lengthy periods of time made financial conditions worse, and the credit crunch in 1991 exacerbated problems.

The recent economic and business situation has led to the failure or consolidation of many wholesale establishments, particularly smaller ones, and pressure to reduce costs in view of reduced sales.

In addition to the unfavorable business climate for many wholesale establishments, there is increasing pressure from customers to upgrade order entry, transaction processing, information on delivery of goods or delivery status, picking and shipment of orders, communication in electronic forms such as EDI, and other functions. Customers also are demanding more quality of service in terms of speed of response to inquiries and orders and quick delivery as well as quality of materials or goods delivered.

Key business issues identified by respondents from the wholesale distribution industry at this time are shown in Exhibit II-1.

EXHIBIT II-1

Key Business Issues in the Wholesale Distribution Industry

- Slow retail sales as the result of the recession
- Reduced or cancelled orders from retailers and manufacturers
- Competition, including new distribution channels
- Consolidation or reduction of establishments
- Need to reduce or hold down costs
- Need to upgrade application systems and service to clients
- Difficulties in arranging financing

In order of importance to respondents

Wholesale distribution is a means of organizing distribution between manufacturers and other suppliers of goods or materials in bulk and those who will sell the goods and materials to consumers or use them in other manufacturing operations. Wholesalers grow and experience recovery with the markets that they serve, and suffer when these markets have falling sales.

Many of the approximately 5,500 large wholesale distributors that handle about 50% of sales have sufficient business to support them, or the resources to survive the current recession, but they also face strong competitive pressures.

- They are highly concerned about having the level of automation necessary to meet user needs and demands, and are also interested in controlling and reducing costs.
- A number of users in this size group have large OLTP systems that are operational on mainframes and/or minis.

The 29,000 to 30,000 midsized firms that handle about 25% of wholesale business are experiencing more business failures and consolidation than the largest firms.

- These firms are highly concerned about reducing costs as well as serving clients.
- They have been large users of mini- and PC-based turnkey systems and applications software products.

The remaining 275,000 firms in wholesale distribution, which handle about 25% of sales, are suffering most from the unfavorable conditions in retail distribution and manufacturing.

- These firms must use intensive clerical work by their owners or automation to keep costs down and serve their clients.
- Many of these firms have processing services or have obtained applications software products and turnkey systems from VARs and other small vendors or computer stores.

Wholesale distributors in general have a relatively high level of use of information technology and have gone through regular upgrades of capabilities.

- Wholesale firms were among the first users of processing services vendors. ADP and other processing firms continue to offer accounting and other application systems on processing services to meet the needs of wholesalers, although many of these users have moved processing in-house.
- Turnkey systems was the next step for many wholesalers. Vendors tended to specialize in offering turnkey systems to segments of the wholesale market, such as Unisol (jewelry) and Triad (auto and hardgoods).

Software and hardware vendors, including IBM, DEC, Unisys and Oracle, have addressed the need for increased on-line transaction processing capabilities for large wholesale distributors, as DEC has done for Kaman Corp.

Large retail stores and manufacturers have encouraged or forced their wholesale suppliers to use EDI.

Some wholesalers have used bar codes to manage inventory and parts delivery functions and data from POS units at clients to monitor sales and reorder needs.

A number of wholesale distributors are now exploring the use of open systems so that it will be easier to make the upgrades that wholesalers constantly need in their application systems.

The key technology trends currently mentioned by wholesale vendors serving this market are listed in Exhibit II-2.

EXHIBIT II-2

Key Technology Trends Identified by Vendors and Users in Wholesale Distribution

- The development and improvement of on-line transaction processing systems
- Improvement of network capabilities, including the use of LANs
- The use of upgraded turnkey systems and applications software products to reduce costs
- The use of open systems
- More automation, including the use of bar codes in inventory and warehouse functions
- The use of EDI, electronic mail and VANs

Despite the feeling that there is a need to use information services in the wholesale distribution industry, vendors serving this industry report that considerable effort is needed for most sales; there is pressure to reduce the price of solutions; and heavy competition is being encountered.

Vendors of applications software products say that some prospects in the wholesale market have expressed interest in downsized solutions that could use lower-cost equipment or networked workstations.

- However, a number of larger wholesalers feel that they must have the processing power of mainframes to meet transaction processing needs.
- All Phase Electric Supply Co. of Michigan feels that a mainframe processing capability is needed to process its volume of 20,000 transactions per hour from 108 branch locations in 20 states.

B

Current Industry Events

Wholesalers running hyperstores that serve retail establishments and consumers are expanding operations.

- Home Depot had a program under way in 1991 to open new facilities.
- One new Home Depot facility reports that it is expanding its ability to serve small retail establishments.

Several large general merchandisers and manufacturers have reported that their wholesale suppliers now stock parts and material closer to them so that they can quickly respond to needs.

Manufacturers are also attempting to improve the quality of suppliers in other ways. Deere has contracts with suppliers for the repair of defective parts.

The increased interaction of wholesale establishments with their clients has added to the need for more network capabilities.

- J.C. Penney announced a program in 1990 to increase the number of suppliers linked to its headquarters for EDI communication from 300 to 5,000.
- The large clothing manufacturer and wholesaler, Damon, has installed POS equipment at many of its retail clients so that it can track sales and expedite reordering for them.
- The wholesale distribution subsidiary of a large energy company has developed a VAN-based electronic commerce system for customers as well as an EIS to supply information on products.

Information services vendors—from very large firms such as IBM and DEC to small firms such as Micro DataNet and UIS—report that one of the chief, if not *the* chief consideration of wholesale suppliers today is the network capabilities of new systems.

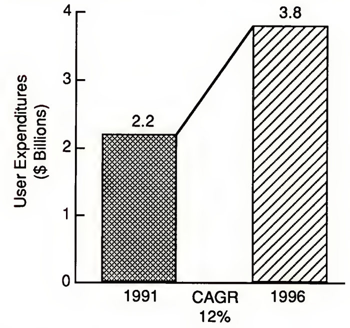
III

Information Services Market Forecast

A
Total Market Forecast, 1990-1996

Expenditures for information services in the U.S. wholesale distribution sector continued to grow between 1990 and 1991, and will maintain growth through 1996, as shown in Exhibit III-1, despite the impact of the recession on retail purchasing and manufacturing.

EXHIBIT III-1



- Growing at a rate of 11%, expenditures will advance from $2 billion in 1990 to almost $2.2 billion in 1991.

- Growth will increase to 12% compound annual growth rate (CAGR) between 1991 and 1996. Total expenditures in wholesale distribution will reach approximately $3.8 billion in 1996.

The falling rate of retail sales and lowered orders in manufacturing caused a drop of 2% in forecast expenditures for information services in 1990 versus the forecast for 1990 made in 1989, and a forecast drop of 4% for the expenditures forecast for 1995 versus the prior forecast.

Despite these setbacks, the growth of expenditures for information services will not fall greatly in wholesale distribution as a result of the continuing recession, due to the need for further automation to meet the needs of manufacturers and retailers.

Wholesale distribution requires information services for a number of improvements, including:

- Improved order entry and transaction processing to respond to orders more quickly

- Improved control of inventory and order fulfillment

- Consolidating operations and/or reducing costs

- Improving response to requests for information and service

- Improving inventory methods to maintain inventory at levels that will facilitate sales but not add substantially to warehouse or storage space

- Introducing automatic equipment or bar code technology in warehouse and inventory applications

- Upgrading systems and networks to take advantage of newer technology. This could involve the use of downsized equipment systems and client/server applications software products in companies with multiple locations and warehouses.

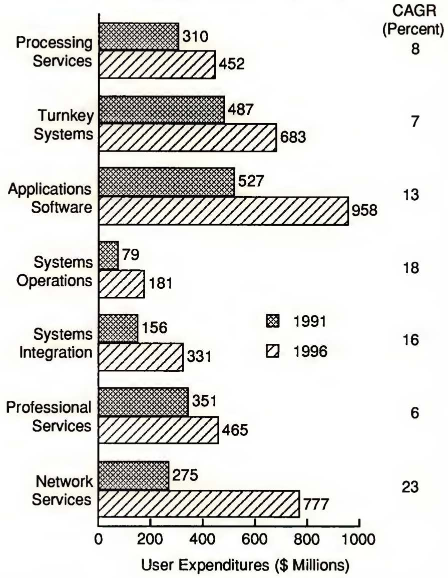
Expenditures for information services in the wholesale sector are growing slightly faster than the average rate of growth across all industries. Expenditures in manufacturing and telecommunications are growing more vigorously, but in education, business services, banking and the federal government, they are growing less rapidly than in wholesale.

B
Forecast by Delivery Mode

Exhibit III-2 discusses the wholesale distribution sector by delivery mode.

EXHIBIT III-2

Wholesale Distribution Sector Information Services Market by Delivery Mode, 1991-1996



1. Processing Services

User expenditures for processing services grew at a rate of 7% between 1990 and 1991, rising from $289 to $310 million. They will grow at a compound annual growth rate of 8% for the next five years to reach $452 billion in 1996.

Processing services for wholesale distribution includes accounting, mailing, order recording and inventory work, and systems for specific functions for dealers in automobiles, tractors, boats and planes. Some of the wholesalers using processing services are outfits with few people.

2. Turnkey Systems

Turnkey systems is currently the second largest delivery mode for information services in wholesale distribution, with expenditures of $456 million in 1990 and $487 million in 1991.

- The growth rate was 7% between 1990 and 1991 and will continue at that rate (7% CAGR) through 1996.

- Expenditures will reach a level of $683 million in 1996, which will make turnkey systems the third largest delivery mode in wholesale distribution.

Turnkey systems, such as those UIS provides in the wholesale auto aftermarket or that Global Turnkey provides in the wholesale electrical and building industry, have appealed to the wholesale industry.

- The solution to an information systems need is provided from one vendor who also may take care of maintenance, software support and leasing. This is appealing to many small wholesale establishments where there is a small staff busily handling orders, inventory and other functions.

- Turnkey systems provided by VARs have been attractive to wholesale as well as to retail firms, but the recent trend by many smaller wholesalers to buy workstation/PC products, applications software products and network capabilities through stores or equipment dealers has affected the volume of turnkey sales, according to vendors.

3. Applications Software Products

Sales of applications software products are growing at a rate of 11% during 1991 and will increase from $475 million in 1990 to $527 million in 1991. The previously forecast growth rate was also 11%.

- The growth rate will increase to 13% for the period between 1991 to 1996 driven by a high rate of growth (24%) for software products for workstations.

- The growth of expenditures for workstation software products is generally in response to the needs of small and midsized wholesalers that were using manual or processing services solutions. There also has been a tendency to buy multiple components for a solution rather than use turnkey systems (see item 2 above).

From 1991 through 1996, growth of expenditures for all applications software products in the wholesale industry will continue at a compound annual growth rate (CAGR) of 13%, and will reach $958 million in 1996, making it the largest delivery mode in wholesale distribution.

4. Systems Operations

Systems operations is the second fastest growing delivery mode in wholesale distribution, but it is not as significant as it is in retail distribution.

- Systems operations is growing at a rate of 20% in 1991; expenditures increased from $66 million in 1990 to $79 million in 1991.

- It will grow at a compound annual growth rate of 18% between 1991 and 1996 advancing to $181 million of expenditures in 1996. Retail expenditures for systems operations will be about three times as large.

Systems operations services in wholesale distribution include portions of outsourcing contracts for manufacturers that include wholesale distribution functions and contracts with turnkey vendors to run or help with operation of the systems over a period of time.

Systems operations and systems integration have the attraction of a single point of vendor responsibility that was previously mentioned as appealing to wholesale industry prospects in relation to turnkey systems.

5. Systems Integration

Wholesale expenditures for systems integration will grow at a rate of 13% from $138 million in 1990 to $156 million in 1991. Growth will continue at a compound annual growth rate of 16% through 1996 when expenditures reach $331 million. This is about half the projected size of expenditures for systems integration in retail distribution.

- Due to delays in project funding resulting from slower business and the expanded use of downsized solutions, these forecasts are slightly below previous estimates for 1991.

- Systems integration is forecast to recover its momentum by 1996 and be above forecast levels. Manufacturers such as DEC and IBM and their VARs, as well as Big 6 firms, will expand approaches to delivering customized or tailored solutions to wholesalers.

Since wholesale establishments report that they are more inclined to use or modify software products to generate a solution than to develop application systems from specifications, systems integration is an alternative that will be explored, particularly for larger, more complex establishments that cannot accommodate themselves to a turnkey approach.

6. Professional Services

The rate of growth for professional services in 1990 shrank to 7% from the 12% growth rate of 1989.

- Professional services grew from $327 million in 1990 to $351 million in 1991.

- During the forecast period, professional services will grow at a compound annual growth rate of 6% and reach $465 million in 1996.

The low growth rate of professional services in wholesale and retail, compared to its growth rate in other industries, is due to the growing preference for solution-oriented approaches: turnkey systems, applications software products, systems integration or systems operations that can use experience acquired elsewhere to help generate a solution more rapidly than a full development might.

7. Network Services

Network services is one of the faster growing delivery modes in the wholesale sector over the planning period, with a growth rate of 24% between 1990 and 1996.

- Expenditures for network services will grown from $221 million in 1990 to $275 million in 1991 at a rate of 23%.

- Growth will continue at a rate of 24% through 1996 as expenditures for network services grow to $777 million.

The use of network services will be driven by the use of network applications, EDI, electronic mail and VANs.

- Major stores such as Sears and Penney are insisting on the use of EDI by suppliers.

- Manufacturers and retail establishments expect wholesalers to use electronic means for sending them information, thus fueling the use of electronic mail and VANs.

Wholesalers are also large users of credit data bases and information on economic activity. Specialized EISs that deliver information on products by means of VANs or corporate networks for construction, manufacturing, research and other uses will also grow in use.

IV

Competitive Environment

A
Recent Information Services Events

The high level of merger, acquisition, and investment activity that took place in information services firms servicing the wholesale industry during the past few years decreased in 1990 and 1991, but there were some actions of interest in this period, including the following events:

- The acquisition of NCR by AT&T brought together one of the best known firms in wholesaling and retailing and a newer information systems and services provider with some experience in these markets. AT&T's capabilities in networking could be a good supplement to NCR's knowledge of the industry and set of open systems products.

- Big 6 firms interested in the wholesale market have formed alliances with information services vendors such as SAP and SSA that have software products that meet wholesale needs.

- IBM has been increasing the number of VARs that participate in its local seminars for AS/400 solutions. A featured application area for those seminars is wholesale distribution.

- Ultimate has added education in open systems to its turnkey services for retail and wholesale businesses.

B
Vendor Profiles

Profiles of several different types of information services vendors active in the wholesale distribution industry are presented in this section. The strategies, background and products and services of these vendors are reviewed to illustrate the range of competition in the industry.

Some vendors concentrate on business in specific markets, as Triad does in wholesale and retail auto supplies and hardgoods, and Unisol does in wholesale and retail jewelry. Other vendors are focusing on one or several specific information services modes and are addressing industries where that mode is apt to sell, as GEIS is doing with network services in wholesale distribution and other industries.

In addition to the companies that are profiled, many other information services vendors serve the wholesale market, including IBM, NCR, DEC, ADP, Ultimate, Bull, GEIS, Ernst & Young and CSC.

Companies profiled are:

- Andersen Consulting
- American Software
- BT Tymnet
- CACI
- Dun & Bradstreet Software
- Global Turnkey
- Micro DataNet
- Sterling Software, Inc., EDI Group
- Triad

Additional information about these companies or other companies active in wholesale distribution can be found in INPUT's Vendor Analysis Program.

1. Andersen Consulting, Arthur Andersen & Co., 69 West Washington Street, Chicago, IL 60602, (312) 580-0033

a. Company Strategy

Andersen utilizes demonstrations of working solutions to manufacturing and distribution problems as a means of appealing to and closing business with prospects who are solution oriented. Andersen focuses more attention on manufacturing than on other markets, but has extended its capabilities to retail and wholesale distribution as well as to banking, utilities and other markets.

Andersen emphasizes its knowledge of industries and applications, particularly in manufacturing and distribution, to make presentations and conduct consulting studies that can lead to large SI and professional services contracts. By means of studying the performance and problems of companies in its areas of interest, Andersen has been able to suggest opportunities to gain revenues and improve earnings at companies that it contacts. The firm uses acquisitions and alliances to gain additional resources and knowledge with which to address its areas of interest.

b. Company Background

Andersen Consulting was set up by Arthur Andersen & Co. as a separate firm in 1988 to address its rapidly growing and large volume of information services business. Estimated worldwide revenues in 1990 for Andersen Consulting were $2,120 million, 30% above the revenue for 1989. U.S. revenues increased by about 21% to $1,230 million in 1990.

c. Products and Services

Over half of 1990 revenue was derived from systems integration and about 25% was from professional services. Systems operations revenue increased to about 8% of revenue in 1990, and revenue was also obtained from application and systems software products and network services.

2. American Software, Inc., 470 East Paces Ferry Rd., Atlanta, GA 30305 (404) 261-4381

a. Company Strategy

American Software has developed an integrated line of standard applications software products for IBM mainframe and AS/400 platforms designed to run singly or in combination to meet unique customer requirements. These products have been supplemented to meet the needs of installations in particular industries, and American Software will perform professional services work to customize its software products to solve customer problems.

Wholesale distributors are using the following applications software products from American Software.

- Forecasting and inventory management software products that provide users with accurate sales forecasts to minimize and distribute investments in inventory
- Purchasing and materials control software products that provide information on the status of purchasing activities
- Financial and accounting software products

b. Company Background

American Software was founded in 1970. The company grew to around 750 full-time employees in 1990, and its calendar-year revenues for 1990 reached almost $100 million. The company provides applications software products and professional services to manufacturing, distribution, utilities, banking and finance, health care, education, transportation and government clients.

c. Products and Services

About 37% of American Software's revenues are provided by professional services and 13% from maintenance of software products which could be included as part of professional services. About half of the company's revenue is from professional services on that basis. American Software is one of the most successful software vendors in marketing professional services.

American's applications software products can be divided into two groups:

- Forecasting and inventory management software, which accounts for about 8% of revenue.

- Purchasing, materials control and financial software, which accounts for about 38% of revenue.

3. BT Tymnet, Inc. 2560 North First St., San Jose, CA 95131 (408) 922-0250

a. Company Strategy

BT Tymnet is in business to be one of the world's largest providers of a wide range of shared, dedicated and hybrid network solutions. The company operates the TYMNET public packet data communications network and provides access to dial-up services, major on-line data bases, EDI services, card authorization/electronic data capture and other services in support of its strategy.

BT Tymnet has taken actions to penetrate distribution, warehousing and other industries where EDI business could grow.

b. Company Background

The TYMNET data network was initiated in 1969 to support remote processing services to timesharing clients. In 1977, it became an FCC-regulated specialized common carrier and was acquired by McDonnell Douglas in 1984. In 1989, it was acquired by British Telecom plc and a value-added service provider active in Japan. These acquisitions, together with Dialcom (acquired in 1986), were organized as BT Tymnet, a subsidiary of British Telecom, in 1989.

c. Products and Services

The TYMNET network consists of intelligent communications processors and network capabilities that allow clients to communicate between attended or unattended terminals and their own or other computers in a variety of locations. A number of different protocol, error correction, protocol conversion, data security and other services are provided by the network. Access to major on-line data bases is also provided through this network.

EDI*Net is the principal EDI service of BT Tymnet, providing third-party value-added communications services for automated exchange of business documents such as purchase orders, invoices and bills of lading. There are over 1,000 clients, mostly in the transportation, grocery, electronics, telecommunications, aerospace, oil and warehousing industries.

Credit card and electronic data capture are provided for all major credit cards as well as private-label programs.

Private and hybrid data networks are also provided to clients in a number of industries.

4. CACI International, Inc., 1700 North Moore St., Arlington, VA 22209 (703) 841-7800

a. Company Strategy

CACI utilizes its strengths in advanced information system development, engineering and logistics systems, and simulation systems and modeling to obtain federal government contracts.

In recent years, CACI has been using the strength it has gained through government work to provide inventory and warehouse systems to wholesale, retail and other commercial businesses.

b. Company Background

CACI was founded in 1962 to provide professional and marketing services based on a high level of technology to U.S. and international markets.

About 70% of CACI's business is with the federal government and includes program management, policy decision support and advanced systems support.

In addition to utilizing knowledge it has gained in government work to obtain contracts to develop inventory and warehouse systems, CACI has engaged in commercial work in support of marketing analysis and planning.

c. Products and Services

CACI's services in wholesale and retail distribution and manufacturing include inventory and warehouse management and warehouse automation. In addition to consulting and software development, CACI provides implementation work on the robotics used on warehouse automation.

In the federal market, as described above, CACI provides professional and engineering services, and simulation and modeling. CACI has one of the leading (if not the premier) applications software products in use in simulation and modeling of systems—SIMSCRIPT.

Marketing support activities provided on an international basis include market research and demographic consulting.

5. Dun & Bradstreet Software Services, Inc., 3445 Peachtree Rd., Atlanta, GA 30326, (404) 239-2000

a. Company Strategy

The company develops, markets and supports a wide range of industry and cross-industry software products on multiple vendor platforms that enable it to sell to a number of industry markets. Applications software products are available for financial and accounting, human resources, administrative, purchasing, inventory, manufacturing, education and health industry functions.

A number of computer platforms, including IBM, Unisys, DEC, HP and Bull mainframe and/or midrange equipment, are supported.

Wholesale distributors use Dun & Bradstreet software products for inventory control, order management and processing, sales forecasting, human resources, accounting and financial reporting applications. Dun & Bradstreet also provides professional services aid in planning, using and customizing software products.

b. Company Background

This company is a subsidiary of the Dun & Bradstreet Corporation. It was formed in 1990 as a result of the merger of Management Science America (acquired in 1990) and McCormack & Dodge (acquired in 1983). The former had been founded in 1963 and had over 24,500 product installations. The latter, founded in 1969, had over 10,000 product installations.

c. Products and Services

This vendor's software addresses a number of functions, as described in the following material:

- The Millenium Series supports human resources, accounting and support functions, chiefly on IBM and compatible mainframes, but some products are also available for DEC VAX computers.

- The PLUS series offers accounting and a micro-to-mini link for IBM AS/400s and System/38s.

- Human resources products are available for IBM and compatible PCs.

- The BrightView Series, which allows the use of intelligent workstations and addresses accounting, inventory and budgeting functions, uses IBM mainframe and 9370 computers.

- The AMAPS manufacturing software products, which also can use intelligent workstations, are available for IBM mainframe and minis and HP computers.

- Software products are also available for education and factory operations and other functions.

6. Global Turnkey, 4 North St., Waldwick, NJ, 07463, (201) 445-5050

a. Company Strategy

Global Turnkey has maintained expertise in the lumber, electrical distribution and publishing industries in order to sell turnkey systems to these industries. Wholesalers and retailers serving the first two markets are among their customers.

b. Company Background

Global Turnkey was founded in 1968 to develop and market integrated accounting systems to selected industries.

In addition to integrated accounting systems, Global Turnkey is interested in warehousing systems, networking, optical disks and the use of EDI in its markets.

c. Products and Services

Global has a full set of integrated accounting systems for its chosen markets, including invoicing, accounting, inventory and administrative systems. Global is prepared to aid clients with EDI services, and also offers professional services to its clients.

7. Micro DataNet, 2401 Morris Ave., Union, NJ, 07083, (201) 686-9007

a. Company Strategy

Micro DataNet utilizes its knowledge of LANs and accounting software products for PCs to solve the needs of small to medium-sized wholesalers, particularly those in the food distribution business.

Micro DataNet uses economic software written in COBOL for PCs so that modification to customize the software products to meet user needs can be easily arranged and temporary people can be used to do it.

b. Company Background

Micro DataNet was formed in the mid-1980s to market systems using PCs and LANs to small distributors and other companies that wanted more economical solutions to problems.

c. Products and Services

The company is a Novell dealer and has represented several applications software product vendors. At present, the company represents Makola Corp. Micro DataNet supplies professional services to modify accounting software products, and plans and installs networks to meet clients' needs.

8. Sterling Software, Inc., EDI Group, 4600 Lakehurst Court, P.O. Box 7160, Dublin, OH 43017 (614) 793-7000

a. Company Strategy

Sterling's EDI Group has developed and acquired a comprehensive set of EDI services and related software and services that have established the company as a major competitor and source of expertise in EDI.

As part of its strategy, the EDI Group focuses on maintaining a close relationship with clients and supplying their needs as their use of EDI expands. This strategy is supported with education and participation in the largest user group activity in the EDI market.

Markets that the EDI Group has penetrated include wholesale and retail distribution, including grocery, hardware and housewares, as well as pharmaceutical, medical/surgical distribution and service merchandising.

b. Company Background

The EDI Group was created in October, 1990 and includes the ORDERNET Services Division, the EDI Labs Division, and an EDI International Division, headquartered in London. The REDINET Services Division of CDC was acquired in 1991 and was folded into the ORDERNET Division. Fiscal-year 1990 revenues were over $23 million, with 85% of revenues coming from the U.S.

c. Products and Services

About 55% of the EDI Group's revenue comes from software products and 45% from network services. Software products and network services are offered though the ORDERNET division to over 2,700 customers in the pharmaceutical, grocery, hardware and housewares, retail, medical distribution, mass merchandising, warehousing, transportation, and automotive industries.

ORDERNET provides an on-line network to manage and control the flow of standardized business documents among over 2,000 trading partners.

Services to certain industries are provided through vendors active in those industries. ORDERNET services are made available to hospitals through GTE Health Systems. Services including a data base on drug usage are made available to the medical industry through International Health Applications.

Internetwork traffic for the grocery industry is supported through BT Tymnet.

Electronic transmission of charge-back information between wholesalers and pharmaceutical manufacturers is provided in three formats established by national druggists' associations.

Translation between established standards for EDI and other standards in use and between a variety of record formats, and support of existing protocols on different hardware platforms are provided with software from the EDI Group.

A data base service is also available to build on EDI documents, including purchase orders and invoices that trading partners use during business.

Security services, education and software maintenance are also offered in support of EDI products and services.

9. Triad Systems Corporation, 3055 Triad Drive, Livermore, CA 94550 (415) 449-0606

a. Company Strategy

Triad is principally concerned with providing information services that will ensure strong and ongoing relationships with and recurring revenues from selected industries, including retail and wholesale segments of the automotive aftermarket, retail hardgoods firms, and dentists.

Services for the automotive aftermarket have been expanded to include turnkey systems that will address the processing and communication needs of a wide range of retail and wholesale establishments; and software products and maintenance services. Electronic information services that provide automotive parts pricing and catalog updates are also included in support of Triad's strategy to obtain recurring revenue.

b. Company Background

Triad was formed in 1972 to offer turnkey systems to selected markets. The company has also engaged in leasing and third party maintenance services.

Triad had about 10,700 customers worldwide at the end of 1990.

Over 85% of Triad's revenues are from turnkey systems and associated maintenance and support functions; 9% is from electronic information services (EISs); and the remainder is from leasing. The EISs were the fastest growing component of Triad in 1990, growing at a rate of 29%.

c. Products and Services

The Automotive Division of Triad markets turnkey systems with inventory, billing and accounting functions to distributors, jobbers, retailers and auto repair shops in the automotive aftermarket. The Information Services Division provides two proprietary data bases for automotive parts pricing and catalog updating to the same automotive aftermarket clients.

The Hardgoods Division provides turnkey systems to hardware stores, home centers, lumber/building materials dealers and decorating retailers. The Dental Division provides turnkey systems to dental practices.

The Customer Services Division provides predelivery and installation services, customer training, hardware maintenance, software support, and third-party maintenance. Triad also has a leasing subsidiary.

A

Definitions

No industry-specific definitions have been used in this report.

See the separate volume, INPUT's *Definition of Terms*, for the general definitions of industry structure and delivery modes used throughout INPUT reports.

B

Forecast Data Base

A

Forecast Data Base

Exhibit B-1 presents the detailed 1991-1996 forecast for the wholesale distribution sector.

EXHIBIT B-1

Wholesale Distribution Sector User Expenditure Forecast by Delivery Mode, 1990-1996 ($ Millions)

Delivery Modes	1990 ($M)	Growth 90-91 (%)	1991 ($M)	1992 ($M)	1993 ($M)	1994 ($M)	1995 (M)	1996 ($M)	CAGR 91-96 (%)
Sector Total	1,972	11	2,185	2,426	2,710	3,038	3,426	3,847	12
Processing Services	289	7	310	334	360	388	419	452	8
- Transaction Processing	289	7	310	334	360	388	419	452	8
Turnkey Systems	456	7	487	522	559	604	653	683	7
Applications Software	475	11	527	587	662	743	845	958	13
- Mainframe	233	5	245	255	268	275	287	298	4
- Minicomputer	111	10	122	137	152	168	186	200	10
- Workstation/PC	131	22	160	195	242	300	372	460	24
Systems Operations	66	20	79	93	111	131	154	181	18
Systems Integration	138	13	156	181	210	244	285	331	16
Professional Services	237	7	351	371	393	416	440	465	6
Network Services	221	24	275	338	415	512	630	777	23
- Electronic Info. Svcs.	55	15	63	71	81	92	104	118	13
- Network Applications	166	28	212	267	334	420	526	659	25

B
Data Base Reconciliation

Exhibit B-2 presents the detailed 1991-1996 forecast reconciliation for the wholesale distribution sector.

EXHIBIT B-2

Wholesale Distribution Sector 1991 MAP Data Base Reconciliation ($ Millions)

Delivery Modes	1990 Market				1995 Market				90-95 CAGR per data 90 Rpt (%)	90-95 CAGR per data 91 Rpt (%)
	1990 Report (Fcst) ($M)	1991 Report (Actual) ($M)	Variance from 1990 Report ($M)	Variance from 1990 Report (%)	1990 Report (Fcst) ($M)	1991 Report (Fcst) ($M)	Variance from 1990 Report ($M)	Variance from 1990 Report (%)		
Total Wholesale Distribution Sector	2,009	1,972	-37	-2	3,570	3,426	-154	-4	12	12
Processing Services	289	289	0	-	445	419	-26	-6	9	8
- Transaction Processing	289	289	0	-	445	419	-26	-6	9	8
Turnkey Systems	456	456	0	-	653	653	0	-	7	7
Applications Software	484	475	-9	-2	872	845	-27	-3	13	12
Systems Operations	92	66	-26	-28	215	154	-61	-28	19	18
Systems Integration	140	138	-2	-1	278	285	7	3	15	16
Professional Services	327	327	0	-	508	440	-68	-13	9	6
Network Services	221	221	0	-	598	630	32	5	22	23

Expenditures for 1990 were 2% below the forecast. Although the impact of the recession was anticipated, its intensity was more severe than was estimated.

- There was only one noticeable change to the 1990 forecast. Expenditures for the other six modes were close to original estimates.

- Expenditures for systems operations were 28% below original forecasts since the growth of systems operations in wholesale was hampered by the intensity of the recession.

Forecast expenditures in 1995 of $3.4 billion are 4% below the previous forecast of $3.6 billion.

- Lowered forecasts for professional services, systems operations and systems integration, due to the impact of the recession, were chiefly responsible.

- The forecast for professional services was lowered from $508 million to $440 million, and the forecast for systems operations was lowered from $215 million to $154 million. Although the growth rate for the former is low at 7%, systems operations is forecast to grow at 18%, making it a healthy delivery mode in this industry.

- The use of processing services is forecast to be 8%, reflecting the failure of small wholesalers as well as movement of work in-house to workstations/PCs.

Forecasts for systems integration were raised from $278 million to $285 million and for network services from $598 million to $630 million, indicating the interest of wholesalers in these services.

About INPUT

INPUT provides planning information, analysis, and recommendations for the information technology industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions.

Subscription services, proprietary research/consulting, merger/acquisition assistance, and multiclient studies are provided to users and vendors of information systems and services. INPUT specializes in the software and services industry which includes software products, systems operations, processing services, network services, systems integration, professional services, turnkey systems, and customer services. Particular areas of expertise include CASE analysis, information systems planning, and outsourcing.

Many of INPUT's professional staff members have more than 20 years' experience in their areas of specialization. Most have held senior management positions in operations, marketing, or planning. This expertise enables INPUT to supply practical solutions to complex business problems.

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