INPUT

STRATEGIC MARKET PERSPECTIVE

Outsourcing Awards Analysis

U.S. Outsourcing Program

APRIL 1993

OUTSOURCING AWARDS ANALYSIS

INPUT®

1953 Gallows Road, Suite 560, Vienna, Virginia 22182 (703) 847-6870

Published by
INPUT
1953 Gallows Road, Suite 560
Vienna, VA 22182-3934
U.S.A.

Outsourcing Information Systems Program
(OSP)

Outsourcing Awards Analysis

OS1 • 488 • 1993

Abstract

This awards analysis report reviews a group of representative outsourcing contracts that were awarded during the period 1989 to 1992. The report includes such characteristics as the value of the contract, the length of the contract agreement, the client, and the vendor.

INPUT does not intend for the data included in this report to be an exhaustive list of all awards for this four-year period. Rather, it is a compendium of the major awards in the most active industries. The data were compiled primarily from press releases and public information about the activities of outsourcing vendors.

The data are grouped by eight vertical industries. The eight industries INPUT selected recorded enough activity to permit some general conclusions to be drawn about trends in that industry.

The awards are also grouped by eight major vendors in the outsourcing industry. Each vendor's level of activity and industry penetration during the four-year period are reported.

INPUT identifies certain contracts as milestone events in all four years surveyed. These milestones represent awards that were either very large or set some new pattern for the outsourcing of information systems.

The report provides conclusions and recommendations for outsourcing vendors based on the trends identified in this analysis of historical data.

This report contains 72 pages and 46 exhibits, and was prepared as part of INPUT's Outsourcing Information Systems Program for 1993.

About INPUT

Since 1974, information technology (IT) users and vendors throughout the world have relied on INPUT for data, objective analysis, and insightful opinions to support their plans, market assessments, and technology directions, particularly in computer software and services. Clients make informed decisions more quickly and save on the cost of internal research by using INPUT's services.

Call us today to learn how your company can use INPUT's knowledge and experience to grow and profit in the revolutionary IT world of the 1990s.

Annual Subscription Programs

North American and European Market Analysis

Analysis of Information Services, Software, and Systems Maintenance Markets
5-year Forecasts, Competitive and Trend Analysis

- 15 Vertical Markets
- 9 Categories of Software and Services
- 7 Cross-Industry Markets
- The Worldwide Market (30 countries)

U.S.

- Outsourcing
- Client/Server
- Systems Integration
- EDI/Electronic Commerce
- IT Vendor Analysis
- U.S. Federal Government IT Procurements

European

- Outsourcing
- Systems Integration
- Customer Services

Custom Consulting

Many vendors leverage INPUT's proprietary data and industry knowledge by contracting for custom consulting projects to address questions about their specific market strategies, new product/service ideas, customer satisfaction levels, competitive positions, and merger/acquisition options.

INPUT advises users on a variety of IT planning and implementation issues. Clients retain INPUT to assess the effectiveness of outsourcing their IT operations, assist in the vendor selection process and in contract negotiation/implementation. INPUT has also evaluated users' plans for systems and applications downsizing.

INPUT Worldwide

San Francisco — 1280 Villa Street
Mountain View, CA 94041-1194
Tel. (415) 961-3300 Fax (415) 961-3966

New York — 400 Frank W. Burr Blvd.
Teaneck, NJ 07666
Tel. (201) 801-0050 Fax (201) 801-0441

Washington, D.C. — 1953 Gallows Rd., Ste. 560
Vienna, VA 22182
Tel. (703) 847-6870 Fax (703) 847-6872

London — 17 Hill Street
London W1X 7FB, England
Tel. +71 493-9335 Fax +71 629-0179

Paris — 24, avenue du Recteur Poincaré
75016 Paris, France
Tel. +1 46 47 65 65 Fax +1 46 47 69 50

Frankfurt — Sudetenstrasse 9
W-6306 Langgöns-Niederkleen, Germany
Tel. + 6447-7229 Fax +6447-7327

Tokyo — Saida Building, 4-6
Kanda Sakuma-cho, Chiyoda-ku
Tokyo 101, Japan
Tel. +3 3864-0531 Fax +3 3864-4114

M&S 459/01 4/93

Table of Contents

Table of Contents (Continued)

Exhibits

Exhibits (Continued)

I

Introduction

There is value in stepping back from daily market activity and taking a broader overview of the outsourcing market. By compiling and publishing a set of significant outsourcing contracts awarded in the past several years, INPUT provides a basis for allowing market participants to, in effect, look over their shoulders and see how the market is developing.

This data base supplements INPUT's analysis of the market. It provides market participants with the materials with which to draw their own conclusions about their own strategies and the trends in the market. If that leads to conclusions that differ from those developed by INPUT, this can only mean the organizations have a different perspective on certain aspects of their marketing and business development activities.

This data base contains strategic data that record past history, rather than the tactical data that a data base of opportunities would represent. It is nonetheless useful if an evolution of major market trends can be derived from it. The acquisition of tactical data, such as specific opportunities, continues to be an unachievable goal, except in the federal and state and local government vertical markets. Most prospects will not divulge their plans for outsourcing ahead of time.

There have been a few recent exceptions, such as the Continental Bank of Chicago and United Technology contracts. Some major organizations may be adopting a strategy of letting the world know that they are in the market and letting the vendors beat a path to their doors. This is still likely to be the exception to the rule, however, since most organizations only make the outsourcing decision once.

A
Methodology and Source

INPUT has been gathering data on outsourcing contracts awarded in the last several years for use in its research and analysis of the systems operations/outsourcing market. The data are compiled from the following sources:

- Published announcements in the industry press that are usually made at the time of award

- Information gathered while compiling vendor profiles as a continuing part of INPUT's vendor analysis program

- Data compiled as part of INPUT's other research programs dealing with various aspects of the information services industry

- Data compiled in the regular, extensive contacts between INPUT staff and industry executives

This information does not represent an exhaustive listing of the outsourcing contracts in the marketplace. It is useful, however, because it represents a broad cross-section of significant contracts, including those that can be called milestone contracts, such as the Kodak/IBM/DEC, the EDS/Continental Airlines, and the CSC/General Dynamics contracts.

INPUT estimates that the awards in this data base represent 18% of the annual expenditures for outsourcing services during 1991 and 1992. It is fully expected that a larger portion of the market will be represented in future issues of this data base, as data collection tools continue to be refined and vendors and users become less reluctant to discuss the awards.

B

Purpose and Use

By sorting and classifying the awards data by industry and by vendor, some market trends can be identified. This trend analysis can benefit all participants in the market. The objective is to gather, in one place, information about a group of major contracts in the outsourcing market and derive some value from it.

This report sorts and catalogs contracts by industry to benefit those concentrating in one or two vertical markets. It also sorts and reports information on major vendors to provide some analysis of each major vendor's strategy.

As part of the industry analysis, INPUT includes a ranking of the top contractors in each vertical industry. These rankings are not based on activity tracked in the data base, but rather on actual vendor revenues reported in 1991 from the individual industry sectors. INPUT included this additional information to obtain a complete outlook of the competitive environment in the eight market sectors.

Vendors can use the data as an additional check on their evolving market strategies. Users and prospects can identify the dominant vendors in their vertical market and organizations in their industry that have already chosen to outsource their systems operations activities.

C
Report Structure

The report is organized to provide quick access to the data of most interest to the reader.

Chapter I—Introduction—identifies the purpose and scope of the report and describes the sources of the data.

Chapter II—Executive Overview—highlights the major points of the analysis and provides a summary of the key data.

Chapter III—Industry Analysis—presents the contract data sorted by vertical industry market. Only industries with sufficient data are included—namely banking, federal government, state and local government, discrete manufacturing, process manufacturing, insurance, retail distribution, and business services. Certain characteristics of the activity in each vertical market are discussed.

Chapter IV—Vendor Analysis—reviews the major contract awards of each vendor. It includes discussion of what these awards imply for that vendor's strategy in general.

Chapter V—Conclusions—presents an overview of the market activity, including a chronological review of the major awards and their impacts on market trends.

D
Related INPUT Reports

- *Systems Operations—Growth for the 1990s* (1989)
- *U.S. Systems Operations/Outsourcing Market, 1991-1996* (1991)
- *Systems Operations Management Issues and Practices* (1990)
- *Network Operations Management, 1990-1995* (1990)
- *Systems Operations Buyer Issues and Alternatives* (1991)
- *Systems Management Priorities and Directions* (1991)

- *Systems Operations Vendor Analysis* (1991)
- *Case Studies in Downsizing* (1992)
- *Methods of Approaching IS Outsourcing* (1992)
- *Outsourcing of Network Management and Operations* (1992)
- *Strategic Assessment of the IS Outsourcing Revolution* (1992)
- *Outsourcing Desktop Services* (1992)
- *Interaction of Downsizing with Outsourcing* (1992)
- *IS Outsourcing Market Opportunities, 1992-1997* (1992)

II

Executive Overview

This data base is one of strategic data, recording past history, rather than the tactical data that a data base of opportunities would represent. It is, nonetheless, a useful data base from which to derive major market trends.

This data does not represent a complete, exhaustive listing of the outsourcing contracts in the marketplace. It does, however, represent a broad cross-section of significant contracts, such as the Kodak/IBM/DEC, the EDS/Continental Airlines, and the CSC/General Dynamics contracts.

INPUT estimates that the awards in this data base represent 18% of the annual expenditures for outsourcing services during 1991 and 1992.

The report sorts and catalogs the contracts by industry for the benefit of vendors concentrating in one or two vertical markets. It also sorts and reports on information about major vendors to provide some analysis of each major vendor's strategy.

Vendors can use the data as an additional check on their evolving market strategies. Users and prospects can identify the dominant vendors in their vertical market and organizations in their industry that have already chosen to outsource their information systems activities.

A
Major Industry Activity

Eight of the fifteen vertical industries monitored by INPUT have had sufficient activity in the recent past to warrant analysis and inclusion in this data base.

1. Banking and Finance

Historically, the banking and finance market has been the most receptive to and the most successful for outsourcing vendors. This industry contains the longest existing contracts in the outsourcing market. Further, most of the major vendors have won major awards in the banking industry. In addition, there are some specialist vendors who participate only in the banking industry.

The relative success of outsourcing in the banking community relates to a number of factors:

- Bankers are familiar with the concept of outsourcing. They were outsourcing credit card processing, check collection, and other services before anyone coined the term *outsourcing*.

- Banking executives, a close-knit community, are acutely aware of what their competitors are doing.

- The banking community, in particular the savings and loan sector (and now the commercial sector), is experiencing serious financial setbacks. This is an environment in which the reduced capital investment and operating expense reductions promised by outsourcing vendors fall on receptive ears.

It is no wonder, then, that three phenomena have developed in the banking market:

- Major vendors, such as IBM and EDS, have targeted the industry and have garnered a large number of contracts in this sector.

- Banking specialists, such as Systematics and FIserv, have been successful at outsourcing, even though they have concentrated on only one market. Only in banking is the market mature enough to permit this.

- Members of the banking community themselves have ceased acting as outsourcing vendors. Mellon Bank, the only example remaining, recently exited the market entirely.

2. Discrete Manufacturing

The more aggressive firms in the discrete manufacturing vertical market have traditionally been receptive to outsourcing of their systems operations. Many firms in this industry have also maintained a distinction between business operations and shop floor operations. This has led to internal competition for processing equipment and information technology products.

The aerospace subsector of this industry has become a haven for megacontracts. It contains three of the five largest outsourcing awards ever made in the United States. The success of outsourcing in this industry subsector is largely driven by the poor financial outlook of the aerospace industry. This is due to a combination of factors, including cuts in DoD spending, increased global competition, and the recent economic downturn.

3. Process Manufacturing

The process manufacturing vertical industry has provided good opportunities for outsourcing vendors, particularly in the oil and gas processing subsector of this market. The year 1992 brought a flurry of outsourcing activity in the steel processing industry subsector as well. Yet some of the largest and most advanced firms in this sector—the pharmaceutical and food processors—have not yet jumped on the outsourcing bandwagon. It may be that the more financially troubled firms are first to turn to outsourcing.

There are few mega-contracts in this sector yet, though there are some very large companies that are good outsourcing candidates.

4. Retail Distribution

Until recently, organizations in the retail industry showed little enthusiasm for outsourcing. This situation has changed over the past two years with the aggressive entrance of ISSC and EDS into this market sector.

ISSC was very successful in 1991 in this vertical industry because it was able to leverage its strong presence in the retail distribution market. Despite ISSC's strong presence, however, EDS managed to land the two largest outsourcing contracts in the retail industry in 1992.

INPUT expects this market to grow at a 23% CAGR for the forecast period 1992 to 1997, primarily because of the continued high rate of activity of IBM and EDS, and the current low revenue base.

5. Business Services

Only a few companies have awarded contracts so far in the business services industry. EDS is the dominant vendor in this market. This industry represents a diverse mix of firms whose services range from providing entertainment and assistance to consumers to providing consulting to business firms. As a result, it is a difficult market to penetrate with a single strategy.

EDS has been successful recently. Its strategy has become clear. The Continental Air, National Car, and Hospitality Franchise contracts all involve acquisition or joint development of reservations software and related information technology.

6. Insurance

Traditionally, the insurance industry has resisted outsourcing. This is starting to change.

In 1992, EDS landed an $800 million contract with Blue Cross and Blue Shield of Massachusetts to provide all its information technology services. This is quite a change from previous Blue Shield contracts, which covered only processing services. INPUT believes that opportunities similar to the EDS deal will soon follow in this industry segment.

7. State and Local Government

The state and local government marketplace has demonstrated a pent-up need for upgraded and enhanced systems as obsolete systems break down under the increased requirements placed upon them by the demand for more services. The IT budgets of most states are suffering from the same restrictions and shortages as the federal government. There are substantial awards being made at the state level to such vendors as EDS, ACS, CSC, and SHL Systemhouse.

8. Federal Government

The federal government industry sector has long been the "big leagues" for systems integrators and outsourcing vendors. This market had the largest contracts with the longest durations. The major outsourcing vendors dominated the market because the stakes were so high. In addition, the rules of engagement were unique, since federal procurement policies dictate very different buying practices from those of the commercial market.

B
Market Growth

Exhibit II-1 summarizes how the outsourcing market, represented by the eight vertical industries reviewed, has grown. In the aggregate there is a very healthy growth pattern: INPUT expects the CAGR to reach 18% over the period 1992-1997. INPUT's full market analysis report discusses this in detail. The pattern for each of the eight vertical industries is discussed in Chapter III of this report.

The number of contracts definitely portrays an upward trend with the exception of a slight drop in 1991. The values of these contracts also shows a steady increase indicating that the individual contracts are being let for a higher life-cycle value.

EXHIBIT II-1

Representative Contract Award Values, 1989-1992

Year	Number of Contracts	Value ($M)
1989	12	1,693
1990	67	4,069
1991	64	10,376
1992	80	9,381

C
Major Vendors' Market Strategies

Exhibit II-2 illustrates the variation in penetration by vertical market for some of the most active outsourcing vendors.

The following discussion profiles the activity of eight major vendors. The number of contracts indicates how active they are and how forthcoming they are with awards announcements. Most vendors only issue releases about their major contracts, and many prefer to refrain from talking about the value of the contract.

1. EDS

EDS holds the largest market share (13% of 1991 revenue). This reflects three factors:

- EDS has been in the outsourcing business for 30 years.
- EDS has negotiated some of the largest contracts in the industry, such as the Continental Airlines and Enron Corp. contracts.
- EDS is active in ten vertical industries.

The list of sample contracts illustrates a few elements of EDS' strategy.

- EDS favors long-term contracts of 10 years or even more.
- EDS assumes responsibility for applications development whenever possible. In the Continental and the National Car cases, access to the resulting software was a key element of the negotiations.

EXHIBIT II-2

Industry Penetration of Vendors

	Banking and Fin.	Discrete Mfg.	Process Mfg.	Bus. Services	Ins.	Federal Gov't	State and Local Gov't	Retail Dist.
EDS	X	X	X	X	X	X	X	X
IBM	X	X					X	X
Andersen		X	X				X	X
CSC		X	X		X	X	X	X
Genix		X	X					X
Power		X	X					
ACS	X	X					X	X
Systematics	X							

2. IBM (ISSC)

IBM recently emerged as a force in the market with the formation of the Integrated Systems Services Corporation (ISSC).

IBM held numerous outsourcing contracts prior to that time. A new focus has been placed on the aggressive pursuit of the services business. The early results have been positive, and INPUT expects IBM to stay in the market.

3. Andersen Consulting

Andersen Consulting emerged as an early successful participant in the outsourcing market, but more recently has seen a slowdown of activity. Management has stated plans to de-emphasize the data center operations portion of outsourcing and concentrate on the areas it knows best—applications software development and maintenance.

4. CSC

CSC was included as one of the highlighted vendors because of the 1991 milestone win at General Dynamics and its major outsourcing activity in the past, which was concentrated in the federal and state and local government vertical industries.

However, CSC should not be counted out of the race in any of the commercial market segments. Expansion into new outsourcing markets, including international markets, is part of CSC's evolving business strategy.

CSC has found niches in which it operates well, such as the management of medical claims processing. It should be able to leverage that experience with other prospects.

Four other vendors are profiled in this report. They are:

- The Genix Group
- Power Corporation
- Systematics
- Affiliated Computer Services, Inc. (ACS)

The first three of these vendors specialize in one or two vertical industry markets. ACS has a broader base and is expanding rapidly after only four years in existence.

The vendors profiled in this analysis represent the leaders in the market and are representative of vendors that have shown strength in smaller niches or show signs of expanding their scope. This review is based on a sampling of contract data, not a complete set.

D
Conclusions

As the market evolves, certain trends and patterns emerge, which are summarized in Exhibit II-3.

- The platform operations market is becoming more of a commodity market, where vendors will have a hard time differentiating their product from that of others. A price war may already be under way here.

EXHIBIT II-3

Conclusions

- Platform operations becoming commodity market
- Applications operations facing resistance
- Multivendor operations emerging

- Applications operations continues to be the outsourcing option promoted by most vendors. Many prospects are, however, still reluctant to turn over that much control to a vendor.

- Very few vendors have the capability of providing all potential outsourcing services to the client, from platform operations to desktop services. When the need arises, clients have entered into separate agreements with several vendors to provide the full range of services. The larger vendors are forming alliances or acquiring assets to address this need.

Outsourcing vendors will evolve in response to market demands and according to a growth strategy deemed appropriate by management. INPUT expects the market forces to be the more important of those two drivers. Any analysis that correctly identifies market trends and changes will provide great strategic value to marketing and sales executives alike.

E Recommendations

A set of recommendations based on user motivations and vendor strategies emerges from this review of major awards in the last four years. These recommendations are summarized in Exhibit II-4.

More often, the vendor must assume substantial risks in order to close the deal with the prospect. This has become a standard operating practice for many outsourcing vendors, and helps them differentiate themselves from the competition.

The outsourcing market has reached the level of maturity in which all viable vendors must assess the risks involved in each proposed deal realistically, and be ready to turn some down if the client has a high probability of failure.

EXHIBIT II-4

Recommendations

- Be prepared to assume risks
- Complement capabilities with alliances
- Expect longer, larger contracts
- Look for more than processing operations

Vendors can address the risk while enhancing their own positions in the marketplace through alliances. They should focus on other participants in the market who can complement the primary vendor's resources. The primary motivation is, indeed, the capabilities enhancement, but a secondary benefit is to share the risk with another vendor.

The move to larger contracts seems to be accelerating. McDonnell Douglas, General Dynamics, Continental Bank, and United Technology represent four recent examples of very large contracts generally awarded for long terms, of at least ten years. As the trend moves toward including applications operations, network management, and desktop services, the value of awards will increase.

The platform operations portion of the entire outsourcing equation is likely to become a commodity priced item. There will be increasing need for each vendor to differentiate itself from the competition, either by industry expertise or software availability. The platform vendor can enhance its position most rapidly by forming alliances. Acquiring complementary assets is a viable, though more costly, solution.

In summary, the outsourcing market continues to require more sophisticated approaches as it expands and matures. Vendors have to assess risks more carefully. They need to manage their own assets and those of their alliance partners effectively. Finally, they must recognize the need to have financial resources in place that allow them to acquire the client's assets, when required. Successful outsourcing vendors will have good answers for these and other market challenges in the coming year.

(Blank)

III

Industry Analysis

Eight of the fifteen vertical industries monitored by INPUT had sufficient activity in the recent past to warrant analysis and inclusion in this data base. Other awards are being tracked as they occur in other industries, but these eight industries have either a large amount of activity, as in banking, or a significant set of awards, as in the retail and business services vertical industry markets.

A Banking

The banking and finance market has been historically the most receptive to and the most successful for outsourcing vendors.

The reason for the relative success of outsourcing in the banking community relates to a number of factors. First, bankers are familiar with the concept of outsourcing. They were outsourcing credit card processing, check collection, and other services before anyone coined the term *outsourcing*. Thus, the concept of turning over an entire specialized operation to an external vendor is not new to most bank executives.

Second, the banking community is a close-knit community whose executives are acutely aware of what their competitors are doing. When one bank is considering outsourcing, it can obtain many referrals by simply picking up the phone. The prospect bank does not have to rely on the vendor for referrals. Rather, it simply calls an associate in a bank that has already outsourced with that same vendor to get the proper perspective on that vendor's performance.

Third, the banking community, in particular the savings and loan sector (and now the commercial sector), is experiencing serious financial setbacks. This is an environment in which the reduced capital investment and operating expense reductions promised by the outsourcing vendors fall on receptive ears.

It is no wonder, then, that three phenomena have developed in the banking market:

- Major vendors such as IBM and EDS have garnered a large number of contracts in this sector.

- Banking specialists, such as Systematics and FIserv, have been successful at outsourcing even though they have concentrated on only one market. Banking is currently the only market mature enough to permit this.

- Members of the banking community themselves have acted as outsourcing vendors. Mellon Bank is currently the only example remaining, now that the operations of Citicorp Information Services have been acquired by FIserv.

Exhibit III-1 lists 67 awards in this industry in descending order of total contract value. There are many large contracts in this market, but many more small ones that are not recorded here.

EXHIBIT III-1

Banking Contracts Ranked by Value

Client	Contract Value ($M)	Vendor
Continental Bank (Chicago)	700	IBM
First City Bancorp (TX)	600	EDS
GM/Household Credit Services	500	EDS
First Fidelity (NJ)	450	EDS
First American Bankshares	400	Perot
Signet Bank	300	EDS
NCNB Bank	200	Perot
Riggs National Bank	160	IBM
Merrill Lynch	150	MCI
Comdata Holdings	120	IBM
Federal Home Loan of San Francisco	80	Systematics
First Tennessee Bank	80	IBM
California Republican Bank	56	Unisys
Bankers Trust	40	Northern Telecom
Westwood Equities Corp.	40	EDS
Financial Information Trust	40	Newtrend
Hibernia National Bank	40	IBM
Equifax Europe	35	IBM
Bank South	30	IBM
Dollar Dry Dock	30	Mellon
Commerce Bancshares	25	IBM
First American National Bank	25	IBM
Southeast Banking (Miami)	25	Mellon
Orange County Federal Credit Union	22.5	EDS
Liberty National Bancorp	20	Systematics
Republic Bank	16	Systematics
Bank of El Paso	15	EDS
North Dallas Bank & Trust	15	ACS
Motorola Credit Union	15	EDS
Federal Home Loan of Milwaukee	13	FIserv
River Forest Bancorp	13	EDS
Community Federal Savings & Loan	12	FIserv
Texas Credit Union	12	EDS
First Interstate Bank	10	Advantis

EXHIBIT III-1 (CONT.)

Banking Contracts Ranked by Value

Client	Contract Value ($M)	Vendor
Bank of Baltimore	10	Mellon
Nationsbanc	10	Systematics
Prudential Bank and Trust	10	Systematics
Federal Home Loan of Seattle	8	EDS
Integra Bank	8	Systematics
Austin Telco Federal Credit Union, TX	8	ACS
Anchor Savings Bank FSB	8	Systematics
Washington State Employees Credit Union	8	EDS
First National Bank of Trenton, TX	7	ACS
First Los Angeles Bank	7	Systematics
Denver Credit Union	6	EDS
Bank of A. Levy	5	Systematics
The Community State Bank, Iola, TX	5	ACS
California Federal Bank	5	Systematics
Chase Manhattan of CT	5	IBM
Bank of Oklahoma	5	Mellon
First Eastern Bank	5	Mellon
Guaranty Federal Savings	5	Systematics
US Central Credit Union (KS)	5	EDS
District Government Employees Credit Union	4.5	EDS
Los Angeles County Teachers Credit Union	4	EDS
Austin Municipal Federal Credit Union, TX	4	ACS
United New Mexico Financial Corp.	4	EDS
San Francisco Federal Savings & Loan	4	Systematics
D&N Bank	3	M&I Data Services
IBJ Schroder Bank & Trust Co.	3	M&I Data Services
Banc One, TX	3	EDS
Columbia Savings & Loan (Irvine)	3	Systematics
Terre Haute First National Bank	3	Systematics
Citizen Bank & Trust	2	Systematics
Resolution Trust Corporation	2	FIserv
New Jersey Savings Banks (3)	1.2	NCR
Banknorth Group	1	Systematics

Exhibit III-2 summarizes the same 67 awards by grouping them according to date of contract award, from 1989 to 1992. The average size of the contracts is getting larger, as the market matures and confidence builds among bankers.

EXHIBIT III-2

Banking Contracts—1989-1992

Year	Number of Contracts	Average Value ($M)
1989	1	600
1990	20	860
1991	23	1,503
1992	23	1,498

Exhibit III-3 graphically illustrates vendor participation in this market. The rankings in this exhibit were based on reported vendor revenues for 1991, not by number of reported contracts in the data base.

In the banking and finance industry, First Data Corporation (FDC)—a former division of American Express—leads, followed closely by EDS. No FDC contract awards were tracked in INPUT's data base because of the way FDC views and reports outsourcing. However, FDC's role as a major supplier of third-party MasterCard and Visa bankcard processing in the United States has earned it the top ranking.

The market leaders in this industry are closely grouped. One vendor does not overwhelmingly dominate. This is a very different scenario from other industries we will discuss later. The majority of the leading vendors are specialists in banking and finance, though FDC also has some penetration in the health services industry. Most of the participants are recognized as experts in their part of the industry and continue to grow at the market rate. FIserv has grown faster by aggressively acquiring companies in 1991 and 1992.

Some vendors have diversified into new markets. Mellon Bank has exited the market after winning a $300 million outsourcing contract in the manufacturing industry with National Steel in mid-1992. First Financial Management Corporation (FFMC) has decided to concentrate on health services and imaging and is currently selling its Basis division to FIserv.

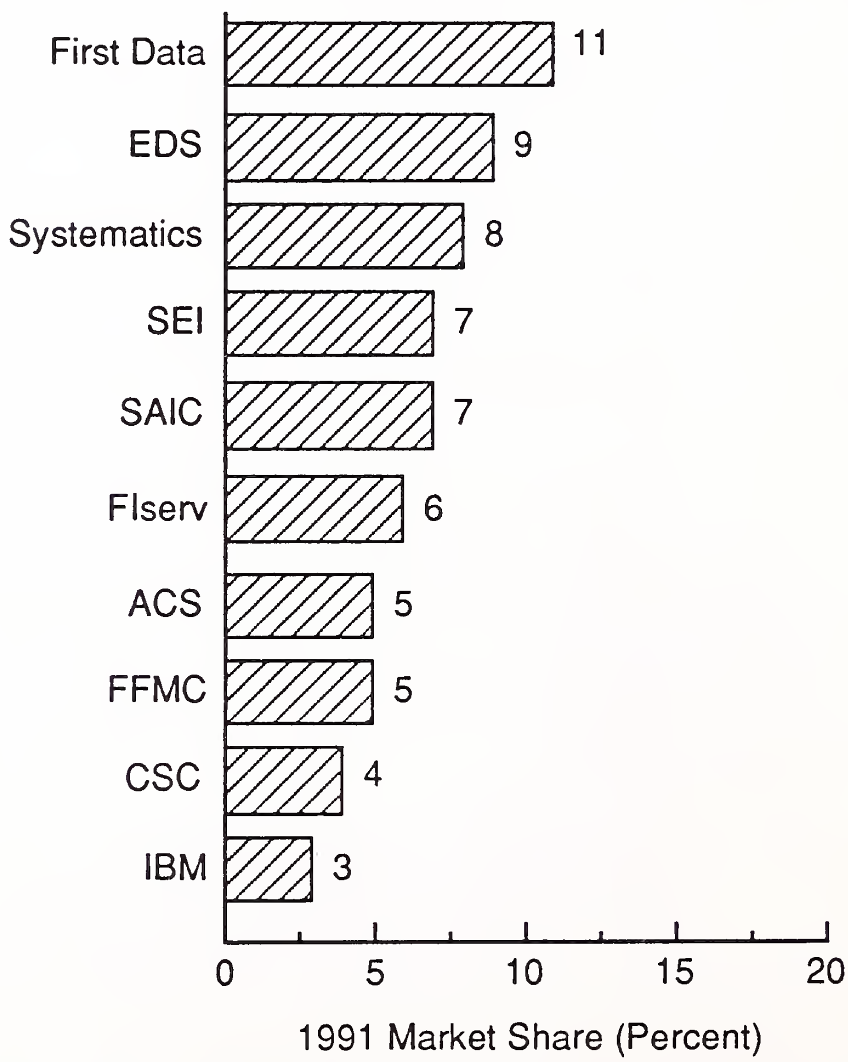
Note that some networking activity has begun in the banking vertical market. MCI and Northern Telecom are both managing networks for banks in separate outsourcing contracts. Advantis, fresh out of the starting gate, announced a three-year network management contract in February 1993 with First Interstate Bank, the nation's tenth largest bank. Advantis is a network management vendor that was founded in December 1992 by the partnership of IBM's Networking Systems Services and Sears Technology Services. The strengths of this partnership will allow Advantis to offer network management to many industry sectors besides banking.

Generally speaking, long-term contracts (greater than five years) represent highest value contracts. The following mix of contract lengths exists in our representative sample:

- Less than five years 6%
- Five years 34%
- Greater than five years 60%

EXHIBIT III-3

Banking Market Vendor Participation



INPUT expects this vertical market to continue to provide substantial prospects for outsourcing vendors. There may be some further consolidation in the market, but the strong vendors are likely to stay strong. Industry observers can expect to see some of the emerging outsourcing trends, such as applications management and desktop services, appear first in the banking market. In spite of the inherent conservatism of organizations in this sector, it continues to set the tone for the entire outsourcing market.

B

Discrete Manufacturing

The more aggressive firms in the discrete manufacturing vertical market have traditionally been receptive to outsourcing of their systems operations. Yet this sector also includes many firms that are extremely conservative and even backward in their approaches to information systems. Many firms in this industry have also maintained a distinction between business operations and shop floor operations, leading to internal competition for processing equipment and information technology products.

This situation is changing, as more firms couple their shop floor information with data in their business operations to improve operating efficiency and responsiveness to customers. The trend should help increase the demand for outsourcing vendors, who understand the merging of the two streams of information and who have software and experience that can be applied to solve these problems.

Exhibit III-4 is a list of representative contracts in order of descending contract value. The list is obviously top-heavy because of the mega-contracts held by CSC and IBM. The CSC win from General Dynamics has been in the limelight for a little over a year as the largest single outsourcing contract ever awarded. It was a milestone both in terms of size and the number of people transferred to the vendor staff. It is significant also in that a large percentage of this staff represents applications programming resources.

EXHIBIT III-4

Discrete Manufacturing Contracts Ranked by Value

Client	Contract Value ($M)	Vendor
McDonnell Douglas	3,000	IBM
General Dynamics Corp.	3,000	CSC
United Technologies	1,000	IBM
American Standard	500	Genix
Eastman Kodak	500	IBM
Cummins Engine	150	EDS
Timken	125	Andersen
Volkswagen of America	100	Perot
Cummins CS	90	EDS
ASK Computer Systems	53	EDS
Eastman Kodak	50	DEC
Eastman Kodak	50	Businessland
Anchor Glass	30	EDS
AM General (LTV)	30	Genix
Ford Motor Company	30	Unisys
CTM/Libbey-Owens-Ford	25	Genix
Schuller International	20	Andersen
Black & Decker	20	PRC
Hitachi Data Systems	20	EDS
Playtex Apparel	17	SunGard
Northrop	15	EDS
Copperweld	12	Genix
Duracell, Inc.	11	Genix
Ford New Holland	10	Advantis
Meredith Corp.	10	EDS
Princeton Packaging	5	ACS
Electrolux Group	5	EDS
Clark Material Handling	5	IBM
BICC Cables	5	IBM
Bridgeport Brass	5	Litton
Bailey Controls	4	Genix
Pneumo Abex Corp.	3.5	SHL
Plessey Electronics	2.4	Genix
Combustion Engineering	2	Power

However, the CSC/General Dynamics contract was not to be alone at the top for very long. IBM's outsourcing division, Integrated Systems Solutions Corp. (ISSC), announced a three billion dollar outsourcing deal with McDonnell Douglas in the last days of 1992 to run the entire IS infrastructure, including its data center, personal computer networks, and voice networks. ISSC will have operational responsibility for strategic systems, including fiscal, scientific, manufacturing, production, and engineering systems.

Before ISSC signed the McDonnell Douglas mega-deal, it inked a $1 billion contract with United Technologies Corp. (UTC) late in 1991. ISSC is providing mainframe computing services for three aeronautics-related UTC businesses: Sikorsky Aircraft, Hamilton Standard, and Norden Systems.

It is interesting to note that all three of the mega-contractors in this industry are vendors in the aerospace subsector. The general financial outlook of the aerospace industry is not looking particularly rosy. This is due to a combination of factors, including: cuts in DoD spending, increased global competition, and the recent economic downturn. Many aerospace companies will continue to consolidate operations and reduce R&D and capital investment in response to these pressures. Outsourcing's reputation for cost savings should continue to be attractive to vendors in this industry subsector.

The list also includes a few contracts that could be called "captive" contracts. PRC's contract with Black and Decker, its parent corporation, and EDS' contracts with ASK Computer Systems and Hitachi Data Systems—firms in which EDS has made significant financial investments—are examples of this phenomenon. The classic example of a captive contract, EDS' processing for General Motors, is not even included in this data base. It is so large and such a special case that it would skew interpretation of the data.

Exhibit III-5 presents the same contracts grouped by award year. It illustrates that the discrete manufacturing industry has the potential for large and mega-contracts. Although large dollar value contracts continued to be won in 1992, they did not reach the level of the previous year.

EXHIBIT III-5

Discrete Manufacturing Contracts—1989-1992

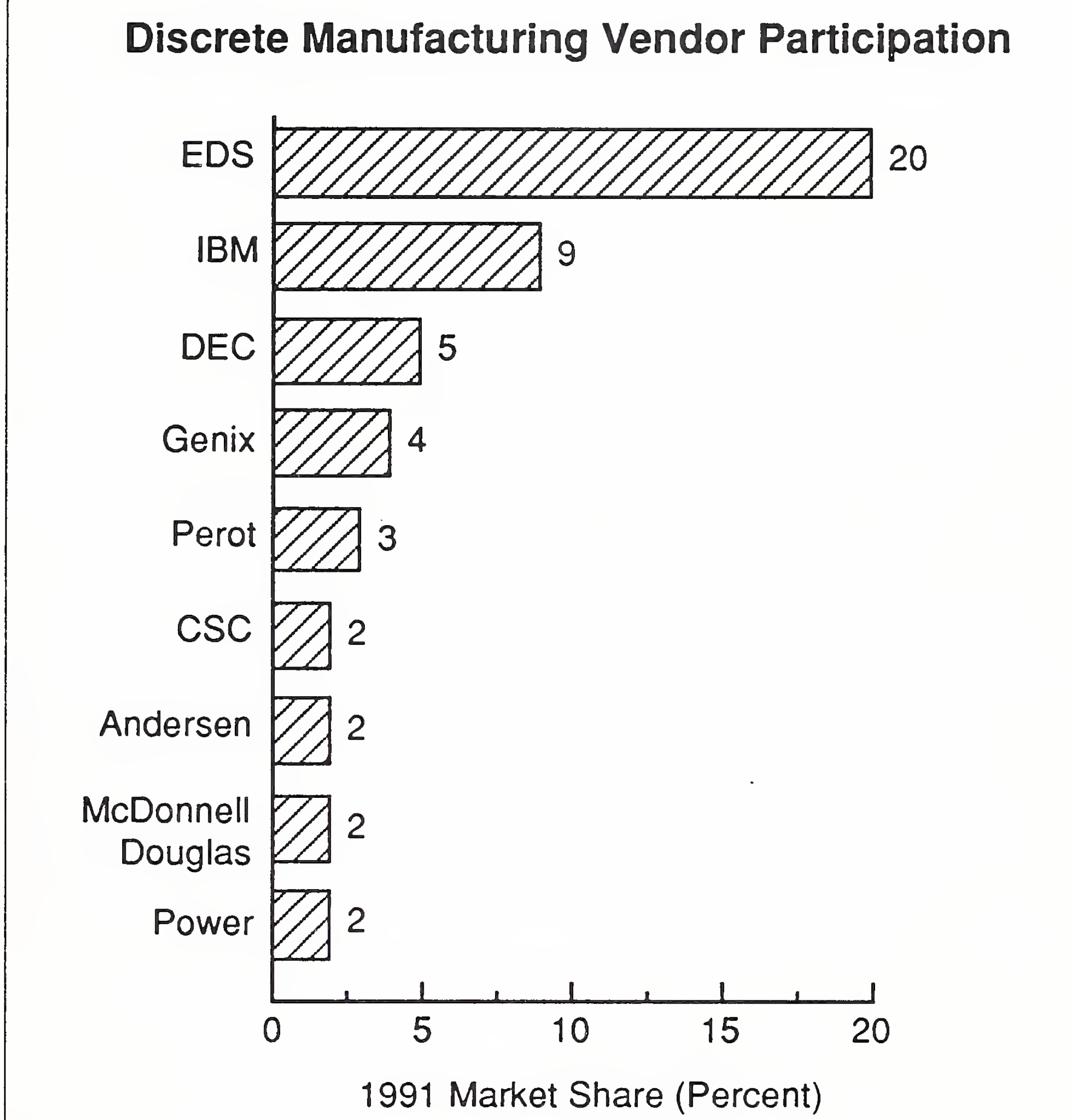
Year	Number of Contracts	Value ($M)
1989	1	500
1990	12	917
1991	10	4,268
1992	11	3,219

Exhibit III-6 lists the major vendors in the discrete manufacturing market. EDS ranks first by a considerable margin, as is the case in many industry segments. The company is a strong performer in both the discrete and processing manufacturing segments. ISSC, building upon its strong hardware presence, has had great success penetrating this industry (holding three of the top five contracts) during its relatively short life span. Digital is also a contender because of its strong hardware presence. Genix and Power have always targeted the manufacturing market and are expected to continue to do so. Andersen has an outstanding reputation in the industry as a systems integrator but is less significant as an outsourcing vendor. This may change as applications management becomes a larger part of the outsourcing market share, because Andersen is known for these capabilities.

Looking at the contract lengths found in the sample of contracts in this market sector, we note that many are in the conservative five-year range. Very few are in the less-than-five-year category. The breakdown is as follows:

- Less than five years 18%
- Five years 55%
- Greater than five years 27%

EXHIBIT III-6



This industry sector has been marked by a constant flow of large, visible contracts, such as the CSC/GD deal and the pending IBM/UT deal. These contracts could well start a bandwagon effect as more manufacturers follow the lead of these two giants and choose to outsource.

C
Process Manufacturing

The process manufacturing industry has provided good candidates for outsourcing vendors, particularly in the oil and gas processing subsector of the market. Yet some of the largest and most advanced firms in this sector, the pharmaceutical and food processors, have not yet jumped on the outsourcing bandwagon. It may be that the more financially troubled firms are first to turn to outsourcing. That was indeed the case with the oil processing sector of this industry in the recent past, though this situation has now been reversed. The pharmaceutical industry, in particular, has enjoyed substantial profits, lessening the need to consider outsourcing.

Another industry subsector feeling the effects of a slowed economy is the steel manufacturing industry. The steel industry's two biggest markets, construction and motor vehicles, were among the hardest hit by the recession. A flurry of outsourcing activity in this industry in 1992 indicated once again that users will turn to outsourcing when financially troubled.

Two newcomers to outsourcing in the steel production industry are CSC and Mellon Bank. Mellon announced a $300 million deal with the National Steel Corp. in mid-1992, which was a very bold move since Mellon has traditionally been an outsourcer to the banking industry. It is the only outsourcing contract they have kept in their recent move out of the market. CSC has also recently started targeting steel companies such as WCI Steel Inc. and RMI Titanium Co., both located in Ohio, as part of its overall strategy to expand into more commercial industries. EDS, though not a newcomer to this industry, is also continuing its participation with a $500 million deal signed in the last days of 1992 with Bethlehem Steel Corp.

Exhibit III-7 lists the representative contracts in this industry in descending contract value. There are no mega-contracts in this sector yet, despite the presence of some very large companies that are good outsourcing candidates.

Signetics represents the first penetration into the electronics industry. This should be a prime target for outsourcing because many of the firms are finding it difficult to maintain decent profit margins in that sector.

Exhibit III-8 presents an overview of the past four years. It illustrates that the process manufacturing industry was an early participant in the outsourcing market and continues to be a good source of prospects for vendors. Although 1991 was a slow year for this industry segment, 1992 provided a steady stream of large dollar value contracts.

EXHIBIT III-7

Process Manufacturing Contracts Ranked by Value

Client	Contract Value ($M)	Vendor
Enron Corp.	750	EDS
Bethlehem Steel	500	EDS
National Steel Corp.	300	Mellon
Sun Refining and Marketing	175	Andersen
Signetics Corp.	100	EDS
AMOCO Petroleum	90	SHL
Freeport McMoran	80	Andersen/ISSC/ Businessland
Wheeling Pittsburgh Steel	70	Genix
WCI Steel	64	CSC
Maxus Energy	60	Andersen
Freeport McMoran	55	EDS
Westmorland Coal	35	EDS
PPG Industries	34	EDS
Hunt Energy Corp.	28	EDS
Permian Corp.	20	EDS
Placid Oil	20	EDS
Cyprus Minerals	16	EDS
Earle M. Jorgensen Company	16	DEC
Micahcon	15	Genix
American Ultramar	15	Power
American Tobacco	14	Genix

EXHIBIT III-7 (CONT.)

Process Manufacturing Contracts Ranked by Value

Client	Contract Value ($M)	Vendor
National Steel	14	Genix
Trinity Industries	13	Power
H.J. Heinz Co. (U.K.)	10	Andersen
Oryx Energy Co.	10	Power
Dial Company	10	Andersen
Beacon Oil	8	Power
H.J. Heinz	8	Genix
BP Oil	6	Mellon
Rexene Products	6	Unisys
Apache Corp.	5	Power
United States Borax and Chemical Corp	5	EDS
Cincinnati Milacron	5	Power
Imperial Oil	5	DEC
Marsulex Inc. (Canada)	5	Andersen
Penrod Drilling	3	EDS
Santa Fe Mineral	3	Power
Ocean Drilling and Exploration	2.5	Power
Loffland Brothers	2	Power
Petro Canada	2	SHL
ASEA Brown Boveri	1.5	Power
Shell Oil	1	DEC

EXHIBIT III-8

Process Manufacturing Contracts—1989-1992

Year	Number of Contracts	Value ($M)
1989	5	73
1990	13	1,158
1991	9	246
1992	15	1,105

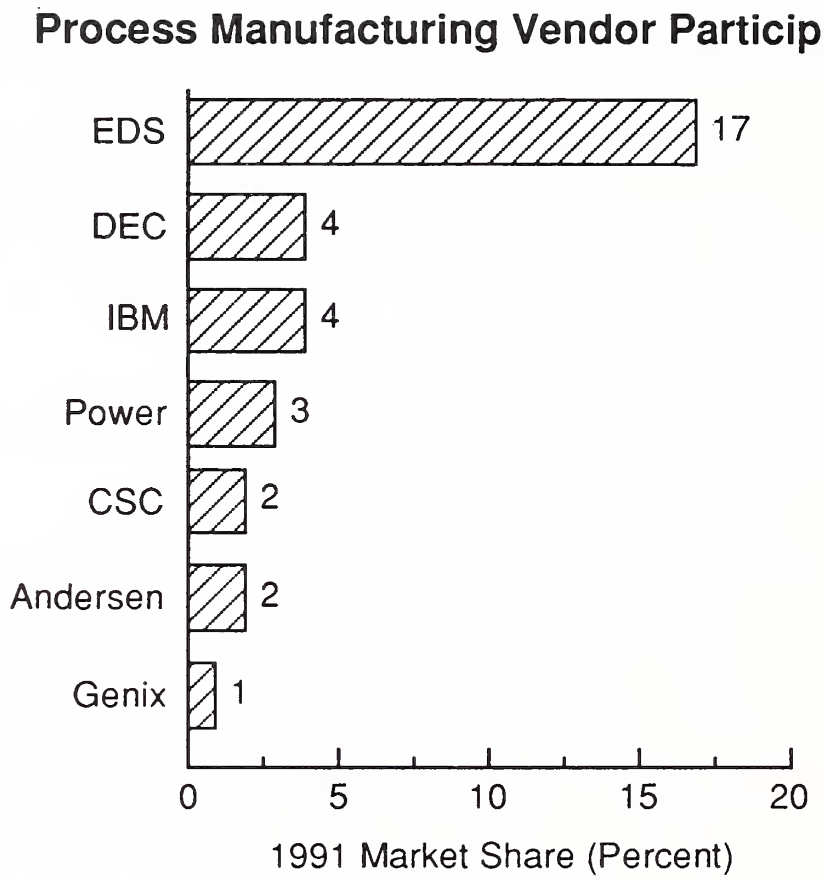
The major vendors are evident when examining Exhibit III-9. The list is strikingly similar to that of vendors participating in the discrete manufacturing industry. Once again, EDS dominates the market, with the rest of the vendors closely grouped. DEC, ranked second, is well recognized as an IT vendor in the manufacturing market, particularly in the process manufacturing segment. As in discrete manufacturing, DEC's strong hardware presence is the reason for its recognition. Power and Genix once again appear together on the top vendor list. Since both firms are headquartered in Dallas and the majority of oil companies have a strong presence in the same area, it could be read as an indication that it pays to be near one's prospects. CSC, as mentioned earlier in this section, is making a move into the steel and ore business as part of their overall strategy to expand into new commercial markets.

The contract duration is spread over a broader range of terms in this market. Even some of the larger contracts will last only five years:

- Less than five years 40%
- Five years 30%
- Greater than five years 30%

INPUT's Market Analysis Program report on outsourcing projects that the compound annual growth rate for outsourcing in the process manufacturing industry will be equal to the overall market rate of 18% for the period 1992 to 1997.

EXHIBIT III-9



D Retail Distribution

Until recently, organizations in the retail distribution industry showed little enthusiasm for outsourcing. A large number of retailers, when interviewed, indicated that their businesses were too specialized to be turned over to vendors. Disappearing profit margins and the aggressive sales activities of IBM (ISSC) and EDS over the past two years have convinced some firms that outsourcing may solve some of their problems.

Exhibit III-10 presents a list of representative contracts in this vertical industry. The oldest contract in this set is the Southland contract held by Affiliated Computer Services, Inc. (ACS). It was the first large contract for ACS and included not only the total assumption of Southland's processing assets, but also the building in which it was housed. ACS has since leveraged this processing capacity and staff to advantage in other outsourcing contracts, such as the one with Builders' Emporium.

IBM has only recently entered this market, but has made its presence felt by scoring three big wins in 1991: two with supermarket chains and one with Zale Corp., the troubled drug retailer. This last contract should be watched because IBM may still lose if Zale cannot pull itself out of the dire financial straits it is in. This situation demonstrates the risk inherent for a vendor when the outsourcing decision is totally based on a financially strapped client's need to dramatically cut costs.

EXHIBIT III-10

Retail Distribution Contracts Ranked by Value

Client	Contract Value ($M)	Vendor
Zale Corp.	286	IBM
Smith Food & Drug Center	160	EDS
Montgomery Ward	100	EDS
Southland Corp.	100	ACS
Supermarkets General	75	IBM
Cullum Companies	60	IBM
RJR-Macdonald	45	EDS
Builders Emporium	20	ACS
Monarch Foods	20	Martin Marietta
Pearle Vision	20	CSC
JP Food Services	15	Martin Marietta
BKDA	15	Martin Marietta
Addis and Rey	15	Litton
Brooks Brothers	12	Litton
Gantos	11	Genix
Revlon	9	Andersen
Woodwards Limited	9	STX
W. Atlee Burpee & Co.	2	CSC

Exhibit III-11 lists the same contracts grouped by award year. Note that no contracts were even identified in 1989. However, this industry sector continues to show a steady growth of activity since the Southland contract was awarded in 1990. Also note that the EDS contracts with Smith Food & Drug and Montgomery Ward make up the majority of the 1992 contract award value.

EXHIBIT III-11

Retail Distribution Contracts—1989-1992

Year	Number of Contracts	Value ($M)
1989	0	0
1990	6	176
1991	5	486
1992	7	312

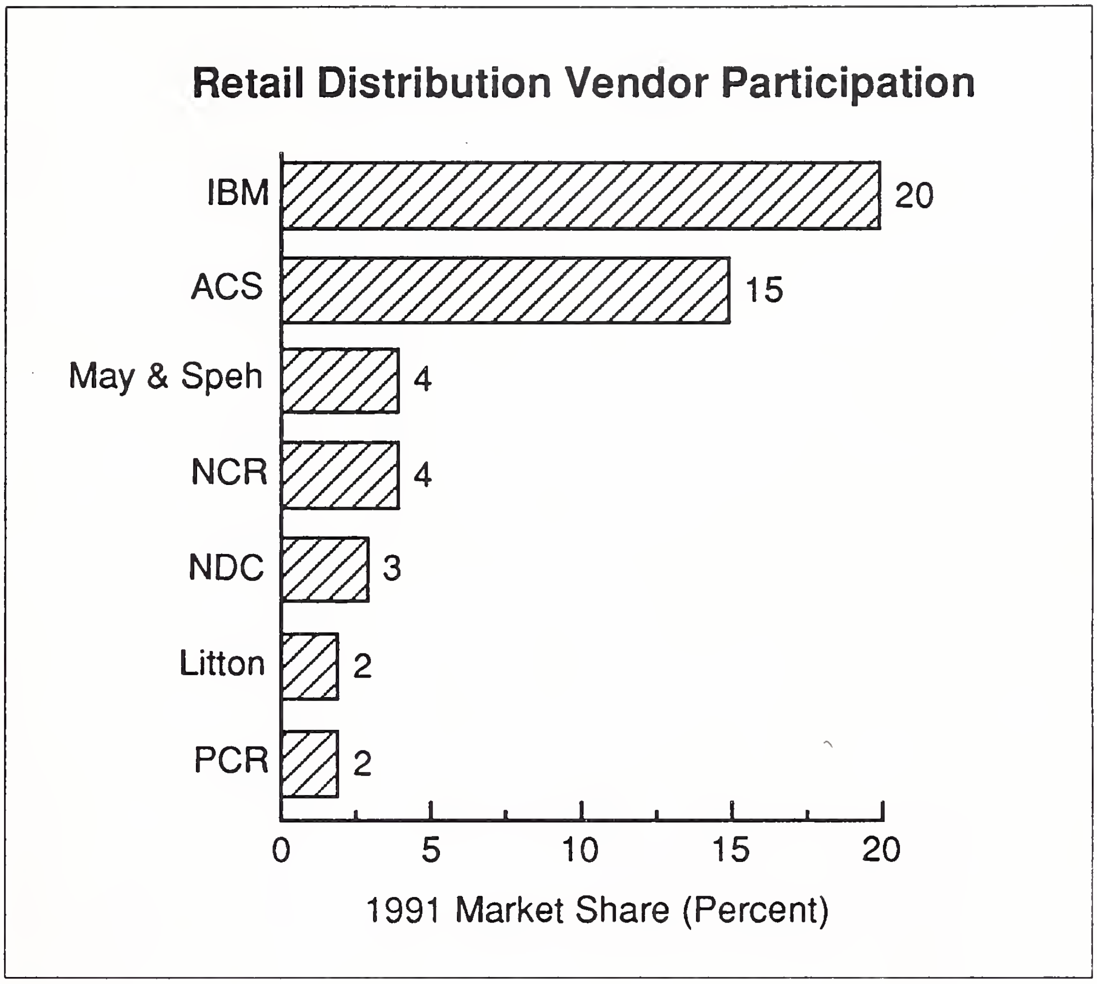
Exhibit III-12 illustrates that ISSC is dominating the retail industry sector. However, if this exhibit was based on 1992 revenue, the picture would probably be different. EDS, not ISSC, landed the top two outsourcing contracts of 1992 in the retail industry. ISSC was unable to leverage its strong presence in the retail distribution market to the degree it did in 1991. Affiliated Computer Services, Inc. (ACS) is currently a strong player in this market, although it seems to concentrate more in the banking market than in retail. Except for May and Speh, the other market leaders have a long history of business in the retail sector, much like ISSC. May and Speh may change its focus now because of a joint alliance with Ameritech, which does not have a strong presence in the retail industry. Martin Marietta has just recently become a player in this industry. The company recently closed two retail distribution outsourcing contracts: one with JP Food Services and another with BKDA, the distribution division of Burger King. Martin Marietta's market share is getting stronger; it already has a contract with Monarch Foods.

Retail distribution is an industry with significant communications needs, because most retailers must manage multiple locations and must interface with their suppliers as well. To date, this has not led to network management activity, however, because EDI has been the route most of these organizations have chosen to meet this requirement.

The contract mix, in terms of length of contract, is interesting to note. The following breakdown for these representative contracts probably typifies this industry as a whole:

- Less than five years 16%
- Five years 33%
- Ten years 51%

EXHIBIT III-12



This is one of the few industries in which long-term contracts may predominate, though by a narrow margin.

INPUT expects this market to grow at a 23% CAGR for the forecast period 1992 to 1997, primarily because of the continued high rate of activity of IBM and EDS and the currently low base of revenue.

E
Business Services

Only a few companies in this vertical industry have awarded contracts so far. Exhibit III-13 illustrates that EDS is the dominant vendor in this market. This industry has a diverse mix of firms whose services range from providing entertainment and assistance to consumers to providing consulting to business firms. As a result, it is a difficult market to penetrate.

EXHIBIT III-13

Business Services Contracts Ranked by Value

Client	Contract Value ($M)	Vendor
Continental Airlines	2,100	EDS
National Car Rental	500	EDS
Europcar	450	Perot
Hospitality Franchise System	88	EDS
Postal Buddy Corp.	50	EDS
Capitol Records	35	EDS
Loews Anatole Hotel (TX)	15	EDS
Emergency Networks Corp.	10	EDS
Marine Spill Response	5	EDS

When grouped by award year, as in Exhibit III-14, it is apparent that EDS had its greatest success in this industry segment during 1991. Its strategy has become clear. The Continental Airlines, National Car and Hospitality Franchise contracts all involve acquisition or joint development of reservations software and related information technology. In all cases, EDS retains rights to that technology, which it can then leverage. Look for more activity from EDS in the hospitality subsegment of this vertical industry.

INPUT expects EDS to dominate the hospitality portion of this industry. No other vendor seems likely to make inroads here, even though the financial picture in this industry looks grim and several organizations could benefit from an outsourcing arrangement.

EXHIBIT III-14

Business Services Contracts—1989-1992

Year	Number of Contracts	Value ($M)
1989	1	35
1990	2	25
1991	3	2,688
1992	3	510

F
Insurance

The insurance industry has traditionally been the bastion of resistance to outsourcing. However, INPUT still sees potential in that marketplace. Exhibit III-15 demonstrates that EDS, at least, has found the market productive. Vendors that specialize in the insurance industry include Vantage Computer Systems, The Continuum Co., Cybertek, and well-known giants such as CSC, IBM, and Perot Systems Corporation.

EXHIBIT III-15

Insurance Contracts Ranked by Value

Client	Contract Value ($M)	Vendor
Blue Shield—MA	800	EDS
Jackson National Life	200	EDS
Blue Shield—CA	120	EDS
Robert Plan Corp.	100	Perot
North American Life	97	CSC
New York Life	75	Cybertek
Whitehall Insurance	35	EDS
Security Mutual Life—NY	24	EDS

Blue Cross and the other medical insurance providers should provide a high-potential market for outsourcing services. Although Exhibit III-16 indicates that there was little activity prior to 1991, this inactivity is unlikely to continue. EDS has already capitalized on this area by signing the largest outsourcing agreement in this industry sector with Blue Shield of Massachusetts. EDS also does the platform systems operations for Blue Shield of California.

EDS also renewed its agreement with Jackson National Life for a ten-year contract worth $200 million. In addition to the outsourcing function, EDS will be providing a real-time, on-line, mainframe application for life insurance administration at Jackson National Life.

EXHIBIT III-16

Insurance Industry Contracts—1989-1992

Year	Number of Contracts	Value ($M)
1989	0	0
1990	2	59
1991	3	295
1992	2	1,000

The small sample of contracts in this market makes it more difficult to develop industry-specific generalities. However, the data show that all the identified contracts have a minimum duration of ten years, with two of them stretching to twelve years. This is the only vertical industry in which this was observed.

The insurance industry is showing many of the signs of a sector ready to increase its receptivity to outsourcing. With some of the same problems as the banking community, even its innate conservatism, it should eventually react to its financial woes in much the same way. There is potential for large contracts in an industry that is known for its large investment in processing capacity and staff. Midsize companies will likely be the first good prospects for outsourcing vendors in this market.

G

State and Local Government

The state and local government marketplace has been issuing mixed signals to outsourcing vendors. There is a pent-up need for upgraded and enhanced systems. Obsolete systems are breaking down under the increased requirements placed upon them by the demand for more services. The IT budgets of most states are suffering from the same restrictions and shortages as the federal government and the other segments of the public revenue-based budgets. Yet there seem to be some good awards being made at the state level.

It is more difficult to determine if the local government entities are also outsourcing, because the smaller size of these awards keeps them out of the press and local vendors get a larger share of these. The large municipalities, such as New York and Chicago, behave more like the states and counties in their buying patterns and are good candidates for outsourcing.

Exhibit III-17 lists some awards of significant size at the state, county and local level. The awards can be large when a large buying entity is involved. Many of the systems are for human services-related operations, usually involving processing data gathered from many locations, and distributing case histories across the state.

EDS and CSC seem to be penetrating the Medicaid servicing area. More contracts can be expected to develop here as these two firms leverage past successes.

EXHIBIT III-17

State and Local Government Contracts Ranked by Value

Client	Contract Value ($M)	Vendor
State of California - Medicaid	400	EDS
State of Minnesota	150	MCI
New York State - Medicaid	150	CSC
State of California - Soc. Svcs.	80	IBM
MD, Baltimore, City of	60	SHL
Bay Area Rapid Transit, CA	50	Logica
New York City Transit	50	CSC
Dallas County, TX	35	SCT
MD Benefits System	25	ACS
State of Texas	20	EDS
Peoria County, IL	16	SCT
Texas Comptroller's Office	15	EDS
Los Angeles County	15	ACS
Mass Registry for Motor Vehicles	9	EDS
State of Utah, Dept. of Employment Security	7	Martin Marietta
Butte County, CA	5	SCT
Toole County, UT	5	SCT
California Unemployment Insurance Appeals Board	2	SHL
Michigan, Dept. of Social Svcs.	2	EDS

Exhibit III-18 lists the same contracts grouped by year. Some vendors have been active in this vertical market for some time. These vendors should be able to leverage the systems they manage in one state to apply the same expertise to another state. However, except for the Medicaid situation, that pattern has not yet emerged. One vendor commented that it is not easy to transfer a system developed in one state to another state without a major re-engineering effort.

EXHIBIT III-18

State and Local Government Contracts—1989-1992

Year	Number of Contracts	Value ($M)
1989	2	35
1990	5	200
1991	5	213
1992	9	789

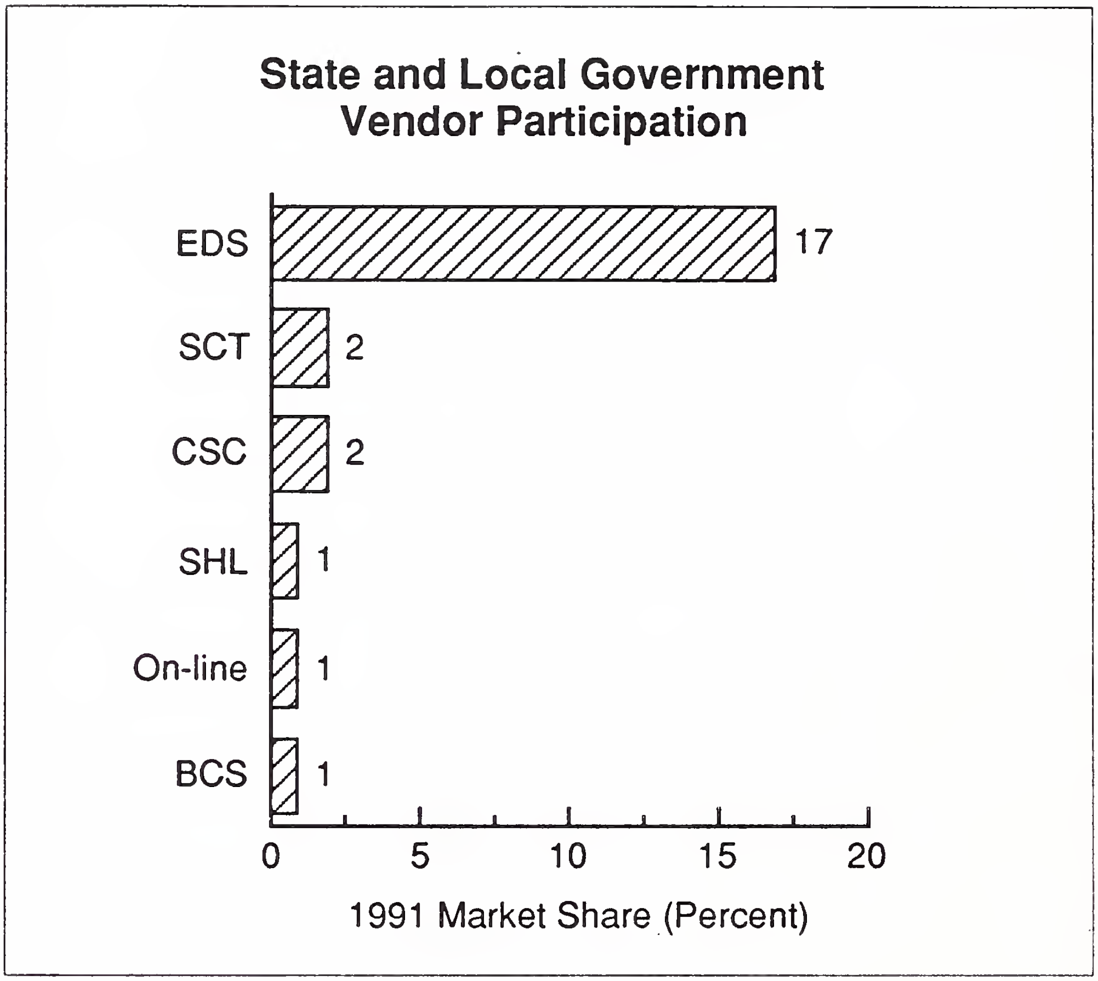
Exhibit III-19 demonstrates the variety of vendor activity in the state and local government sector. EDS still has the lion's share but there are many small firms, with a regional or a local presence, that are outsourcing vendors in this market. SCT is present in this market by virtue of leveraging highly regarded administrative software contracts for state and county entities. SHL Systemhouse is beginning to leverage successes in one state into contracts in other states. ISSC is expected to move up as a contender as its state Medicaid management systems are replicated across many more states. INPUT projects that firms selling software services to the state and local governments, such as SHL and SCT, are well positioned to begin providing outsourcing services to these entities.

The pattern of contract duration in this vertical industry differs somewhat from most other industry sectors. There are few short-term contracts. Only one is for less than five years. Those greater than five years are of six or seven years' duration. The contract pattern is listed below.

- Less than five years 21%
- Five years 29%
- Greater than five years 50%

There appears to be significant potential in this market because so many entities need to perform the very same tasks. A tendency exists in many states to use systems integrators to implement and upgrade the required system and then have either the internal staff or the vendor operate it. This has a dampening effect on the total outsourcing potential, because revenue from opportunities that start as SI opportunities is counted as systems integration revenue by INPUT. This phenomenon does provide opportunities for vendors with strong systems integration capabilities. Two examples come from Boeing Computer Services, which operates a supercomputer center for the State of Alabama and a communications network for the Commonwealth of Pennsylvania.

EXHIBIT III-19



H
Federal Government

The federal government industry sector has long been the "big leagues" for systems integrators and outsourcing vendors. This market had the largest contracts with the longest durations. The major outsourcing vendors dominated the market because the stakes were so high. In addition, the rules of engagement were unique, because federal procurement policies dictate very different buying practices from the commercial market.

Some of this is changing, as illustrated in Exhibit III-20. There are still very large contracts being awarded in this market, but they are now dwarfed by such large commercial contracts as those of General Dynamics and Continental Airlines. The dominant vendors are still the large outsourcing firms, but other successful government contractors, such as AMS and Martin Marietta, are also providing outsourcing services to the federal government.

Note that INPUT has chosen to include the two contractors for FTS 2000 in the federal government telecommunications contract list. This is because of the large size of these contracts and the large percentage of expenditures devoted to operations.

EXHIBIT III-20

Federal Government Contracts Ranked by Value

Client	Contract Value ($M)	Vendor
U.S. Department of Housing and Urban Development	525	Martin Marietta
Federal Aviation Administration	508	EDS
Environmental Protection Agency	302	Martin Marietta
U.S. Postal Service	270	SHL
FTS 2000	270	AT&T
NASA Ames Research Center	220	CSC
FTS 2000	180	U.S. Sprint
U.S. Department of Justice - INS	65	EDS
Defense Information Systems Agency	55	EDS
U.S. Department of Interior - MMS	54	AMS
U.S. Department of State	48	CSC
U.S. Small Business Administration	45	EDS
U.S. Department of Justice	33	Maxima
Environmental Protection Agency	30	CSC
Executive Office of the President	21	PRC
Walson Air Force Hospital	20	CIS Technologies
NASA Langley Research Center	20	Unisys
Resolution Trust Corp.	15	CSC
U.S. Treasury Department	14	SHL
Department of Labor	12	SunGard
U.S. Department of Education	12	CSC
U.S. Department of Energy	11	Unisys
Air Force	5	Dynamic Sciences Inc.
U.S. Department of Justice	3	EDS
Resolution Trust Corporation	2	Citicorp

Exhibit III-21 lists the same contracts grouped by year of award. It is obvious that there are contracts that have been in existence for some time. Yet there is a regular stream of opportunities emerging as agencies continue to upgrade their systems and provide enhanced services to the public.

EXHIBIT III-21

Federal Government Contracts—1989-1992

Year	Number of Contracts	Value ($M)
1989	2	450
1990	7	674
1991	6	677
1992	10	939

Surprisingly, Exhibit III-22 illustrates that there is room for many vendors in the market. Though CSC and EDS still dominate, there are other vendors who have established themselves as contractors to the federal government. These contractors will probably make the difficult transition to commercial markets. Martin Marietta has recently won outsourcing contracts in the wholesale distribution, retail and state and local markets in an attempt to diversify its efforts. Other federal vendors of outsourcing include Boeing Computer Services (BCS), which made a corporate commitment two years ago, and BDM, which recently set up a separate commercial division to concentrate on systems integration work.

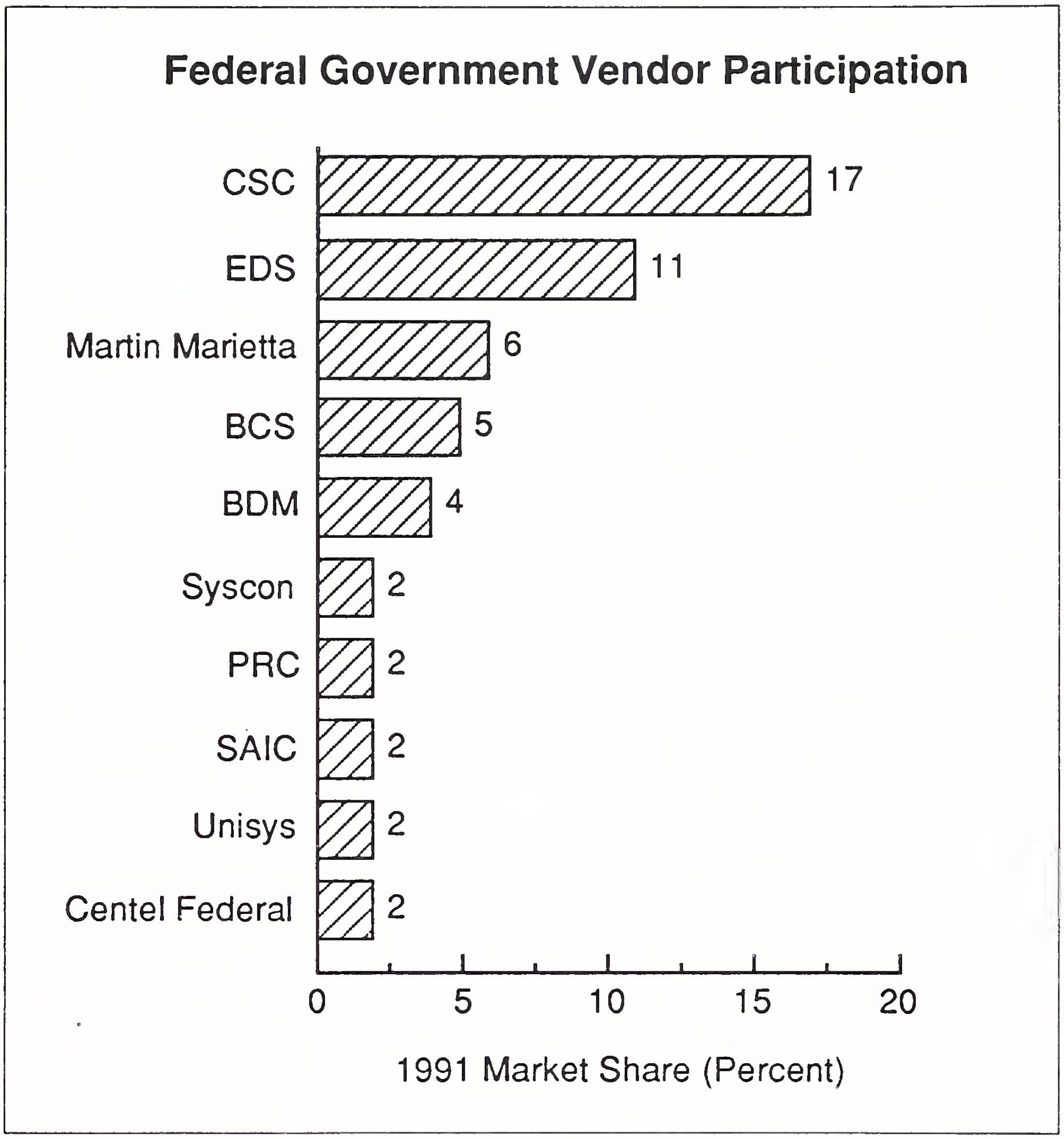
IBM and other aerospace firms are not mentioned in the list. This reflects the fact that many outsourcing contracts begin as systems integration contracts and, thus, do not show up in this sector. In the case of IBM, its federal division was not anxious to pursue outsourcing contracts in the past. That may change in view of the success of ISSC in the commercial market.

The contract length pattern in the federal marketplace is as follows:

- Less than five years 12%
- Five years 44%
- Greater than five years 44%

There are few contracts of less than five years reported. The tendency is for the longest contracts also to be the highest value, though this is not universally true.

EXHIBIT III-22



I
Summary

This sampling of contract awards by vertical industry reinforces the conclusions drawn by INPUT in its market analysis and vendor analysis reports. It also presents the market data in more discrete elements. This is particularly useful for vendors who want to analyze a particular market segment more closely to assess their own entry into the market or change their strategy toward that particular vertical industry market.

The market has now reached the point of maturity that warrants vendors' tracking contracts that are likely to come up for renewal in the near future. Long a practice in the federal market where contract information is more readily available, tracking contracts has now become feasible in the commercial market also. Vendors must weigh the merits of hiding their awards from competition against the benefits of publicizing their wins to enhance their image as a primary outsourcing vendor with other prospects. So far, the advantage of gaining additional credibility outweighs the protective strategy.

As discussed further in Chapter V of this report, there is a pattern in the market as a whole that resembles a bandwagon effect. That is, one big award may stimulate other prospects to make the outsourcing decision sooner. By tracking the award pattern in an industry, it is possible to assess the degree of maturity in that submarket and the likely receptivity of prospects to outsourcing as the solution to their IS needs.

The astute observer may find other emerging patterns in this data that are of tactical marketing value. INPUT's presentation of this data provides a service in that it assembles in one place awards data that, though readily available on an individual basis, is much more useful when presented in the aggregate.

IV

Vendor Analysis

INPUT compiles and publishes comprehensive systems operations vendor profiles as part of its Information Systems Outsourcing Program. These profiles can be found in the binders that are part of that program. An extensive comparative analysis is also prepared as part of that study. The material presented here is fully consistent with what is presented in that volume. It is intended to present a representative set of each featured vendor's contracts as a tool to better analyze the market strategy of that vendor.

This change in perspective provides a tactical tool for each vendor to better address competitors' market activity and develop a parallel or contrasting strategy, as appropriate.

This chapter profiles the activity of eight vendors. The number of contracts indicates how active they are and how forthcoming they are with awards announcements. Most vendors only issue releases about their major contracts, and many refrain from talking about the value of the contract. This does make data gathering more challenging and has led to the estimation of the value of many of the contracts based on the user's IS budget and other factors.

A
EDS

EDS holds the largest market share (13% of 1991 revenue). This reflects three factors:

- EDS has been in the outsourcing business for 30 years, from the time it was called facilities management and had much more limited scope.

- EDS has negotiated some of the largest contracts held in the industry, such as those for Continental Airlines and Enron Corp.

- EDS shows activity in a number of vertical industries, as evident in Exhibit IV-1. Note that the number of identified contracts is simply the count of those in the data base and those announced publicly. It does not represent the total set of awards for this vendor or any other.

EXHIBIT IV-1

EDS Industry Penetration

Industry	Number of Contracts
Banking	18
Process Manufacturing	12
Business Services	9
Discrete Manufacturing	8
Insurance	5
Federal Government	5
State and Local Government	5
Telecommunications	7
Health Services	2
Retail	3
Utilities	1

With identified awards in 11 vertical industries, EDS continues to capitalize on its existing relationships in many vertical industries. In a market where prior experience within an industry is important, EDS is well positioned to continue its pattern of growth.

Exhibit IV-2 lists a few of EDS' larger contracts to illustrate the breadth of its major contracts and the functions performed for clients.

The table heading abbreviations have the following meanings:

- Plat - Platform operations (processing)
- App - Applications operations (applications software development and/ or maintenance)
- Net - Network operations management
- DT - Desktop services (the management of the PC/workstation inventory, its associated LANs and software, and help desk services)

EXHIBIT IV-2

EDS Major Contracts

Client	Value ($M)	Length (Years)	Plat	App	Net	DT
Continental Airlines	2,100	10	X	X	X	
Blue Cross—MA	800	10	X			
Enron Corporation	750	10	X	X		
Federal Aviation Admin.	508	10	X			
First City Bancorp (TX)	600	10	X			
Household Credit Services/GM	500	10	X		X	
National Car Rental	500	10	X	X	X	X
Bethlehem Steel	500	10	X		X	
First Fidelity Bancorp (NJ)	450	10	X			

The list of sample contracts illustrates a few elements of EDS' strategy.

- EDS favors long-term contracts of 10 years or more.

- EDS assumes responsibility for applications development whenever possible. In the Continental and National Car cases, access to the resulting software was a key element of the negotiations.

- Banks seem more reluctant to turn over software development to the vendor, at least in EDS' case.

- EDS has received some of the largest contracts to be awarded in the outsourcing marketplace to date.

As mentioned elsewhere in this report, EDS is one of the few vendors active in the business services and insurance industries. EDS can be expected to continue its pursuit of a number of major opportunities across a broad range of vertical industries.

B

IBM (ISSC)

IBM has recently emerged as a force in the market with the formation of the Integrated Systems Services Corporation (ISSC). It held numerous outsourcing contracts prior to that time. With the formation of ISSC, a new focus was placed on the aggressive pursuit of the services business. The early results have been positive, and INPUT expects IBM to stay in the market, particularly in light of the announced corporate reorganization. This seems to indicate that more of the company will be modeled after ISSC's independent operating structure.

Exhibit IV-3 illustrates that ISSC's industry penetration is continuing to expand. Its presence as a hardware and software vendor in most of the other vertical markets will certainly give it entries on which to capitalize, as it has in the retail industry.

ISSC is actively participating in certain vertical industries in which none of the other market leaders have any presence. Transportation and utilities are examples. It can effectively leverage its strong supplier relationships in these less active segments of the market. ISSC may well evolve as the only strong player in those smaller markets.

As might be expected, ISSC is also strong in the banking industry. That industry seems to have enough opportunities for all participants.

EXHIBIT IV-3

IBM Industry Penetration

Industry	Number of Contracts
Banking	10
Discrete Manufacturing	4
Retail Services	3
Transportation	2
State and Local Government	1
Utilities	1
Health Services	1

Exhibit IV-4 lists some of IBM's major awards. In the final days of 1992, IBM stepped into the mega-contract spotlight by signing a $3 billion deal with McDonnell Douglas. Under the contract, ISSC will acquire the client's multivendor infrastructure from mainframe computers to desktop workstations, including voice and data telecommunications. ISSC will have operational responsibility for strategic systems, including fiscal, scientific, manufacturing, production and engineering. A total of 1,450 McDonnell Douglas employees could be absorbed by ISSC in the deal.

Second on the list of large contracts won by ISSC is the United Technologies Corporation (UTC) deal initiated at the end of 1991. The beleaguered UTC is using ISSC to provide mainframe computing services for three aeronautics-related UTC businesses. The UTC and McDonnell Douglas deals give ISSC a strong presence in the aeronautics subsector of the discrete manufacturing industry.

Eastman Kodak, third on the list, has received extensive exposure, because the contract was a milestone in the industry at the time it was awarded. It is worth noting, however, that Kodak chose to outsource all but the applications development activity—but did so with three different vendors. The asterisks in the chart represent that fact. This pattern has not been repeated often in the market since then.

EXHIBIT IV-4

IBM Major Contracts

Client	Value ($M)	Length (Years)	Plat	App	Net	DT
McDonnell Douglas	3,000	10	X	X	X	X
United Technologies	1,000	10	X			
Eastman Kodak	500	10	X		*	*
Continental Bank	450	10	X	X		
Zale Corp.	286	10	X			
Riggs Bank	160	10	X			
First Tennessee Bank	150	10	X			
Comdata Holdings	120	5	X			

From a review of these contracts, it is evident that ISSC is also experiencing the reluctance of the banking community to let it assume responsibility for applications development. Even in the case of Continental Bank, ISSC is doing applications operations outsourcing that includes applications software responsibility. However, Ernst & Young functions as the subcontractor on site doing the work. Continental later went on to outsource its voice services to WilTel Communications Systems.

There may be actual reluctance on the part of many clients to turn everything over to IBM through ISSC, though EDS seems to have overcome that problem on many of its contracts. ISSC does intend to assume applications operations responsibility whenever possible, so this pattern should change as ISSC matures as a vendor in the outsourcing market.

C

Andersen Consulting

Andersen Consulting emerged as an early successful participant in the outsourcing market, but more recently has seen a slowdown of activity. Management has stated plans to de-emphasize the data center operations portion of outsourcing and concentrate on the areas it knows best: applications software development and maintenance.

Exhibit IV-5 shows that Andersen is beginning to capitalize on its strong consulting presence in a wide range of vertical industries. Andersen has little presence in the banking community. Its recently announced alliance with Systematics is obviously a recognition of this fact, though it is likely to result in systems integration and consulting engagements rather than outsourcing contracts.

EXHIBIT IV-5

Andersen Consulting Industry Penetration

Industry	Number of Contracts
Process Manufacturing	6
Discrete Manufacturing	2
Health Services	1
State and Local Government	1
Retail Distribution	1

Comments from users and prospects indicate that Andersen has a problem when it recommends itself as an outsourcing vendor to a client during a consulting engagement. Several users have questioned the propriety of that recommendation. As a result, Andersen's broad industry coverage may be overrated as a leverage point in the outsourcing market.

Exhibit IV-6 presents some of the major contracts awarded to Andersen. Most of these occurred some time ago. Andersen should not be counted out of this market, however, since it still has adequate processing capacity in the center acquired from Sun Refining and needs to use it to capacity.

EXHIBIT IV-6

Andersen Consulting Major Contracts

Client	Value ($M)	Length (Years)	Plat	App	Net	DT
Sun Refining	175	10	X		X	
Timken	125	10	X			
Freeport McMoran	80	5	X	X		
Maxus Energy	60	5	X	X	X	
Volunteer Hospitals of America	50	10	X	X		

Andersen could emerge as a force in the applications operations market if it can leverage the large talent pool available in applications development and manage those activities. It also seems to be receptive to teaming. The Systematics partnership mentioned earlier may be a way to de-emphasize its data center operations involvement while capitalizing on its development and integration skills.

Though this report covers the U.S. outsourcing market, it should be noted that Andersen Consulting in the U.K. has entered into a milestone outsourcing agreement with BP Exploration. It has signed an agreement to take over an entire business operation, that of the accounting department, including all staff functions and processing and applications software requirements. It is assuming not only responsibility for the IS function, in this case, but the administrative functions as well. Business operations outsourcing is a trend many major vendors are encouraging for the future.

Another new trend on which Andersen will try to capitalize is transitional outsourcing. Transitional outsourcing involves the short-term turnover of information systems operations to a vendor during migration to a new system or a new set of applications. In this form of outsourcing, the user usually intends to take over the operations once the migration is complete. In mid-1992, Revlon, Inc. initiated a deal whereby Andersen will manage the firm's data processing and network operations as well as perform applications maintenance while Revlon migrates from a centralized IBM mainframe to a distributed computing environment. Andersen Consulting Canada has a similar deal with Sunoco in Toronto.

D
CSC

CSC has long been the dominant force in the federal sector, but it was not until 1991, when CSC won the milestone General Dynamics contract, that CSC established a strong presence in the commercial marketplace. As Exhibit IV-7 illustrates, much of CSC's major outsourcing activity came from the federal and state and local vertical industries. However, the exhibit also demonstrates expansion into new industries such as discrete and process manufacturing, retail and insurance.

EXHIBIT IV-7

CSC Industry Penetration

Industry	Number of Contracts
Federal Government	5
State and Local Government	2
Retail	2
Discrete Manufacturing	1
Process Manufacturing	1
Insurance	1

Penetration into international markets is apparently also a part of CSC's expansion plan. In 1992, CSC signed an 11-year data processing outsourcing contract with BhS, a leading retailer of clothing and fashion accessories in the U.K. CSC also hopes to sign a $1.5 billion outsourcing agreement sometime in the near future with the largest Australian insurance company, Australian Mutual Provident Society (AMP).

CSC certainly has the resources to expand its penetration in the commercial outsourcing market. Much of its resource base is experienced in consulting and software development activity. However, it now has a base of 2,600 new General Dynamics people with whom to work, as well as three new data centers with excess capacity.

As Exhibit IV-8 illustrates, the GD deal is by far the biggest CSC has ever received and may well start a bandwagon effect for CSC. CSC has certainly gained credibility with the GD win and can be expected to remain a force in the commercial market after a slow start there.

CSC has found niches in which it operates well, such as the management of medical claims processing. It should be able to leverage that experience with other prospects.

EXHIBIT IV-8

CSC Major Contracts

Client	Value ($M)	Length (Years)	Plat	App	Net	DT
General Dynamics	3,000	10	X	X	X	
NASA Ames Research Center	220	7	X	X		
New York State-Medicaid	149	5.5	X			

E

The Genix Group

As is evident in Exhibit IV-9, Genix has been particularly active in the two manufacturing vertical markets. Considering its origins as the IS department of National Steel, it is not surprising that it has chosen to play on its strength.

There is still much potential in the two manufacturing market segments. If Genix can form further alliances with software vendors, it should be a successful outsourcing vendor to that market. Its merger two years ago with MCN, a utility-based conglomerate, has not yet had any effect on the markets in which Genix is active.

EXHIBIT IV-9

Genix Group Industry Penetration

Industry	Number of Contracts
Discrete Manufacturing	7
Process Manufacturing	5
Retail	1
Utilities	1
Services	1

Primarily a platform operations outsourcing vendor, Genix needs to formulate a strategy to participate in the applications operations outsourcing market. Its contract with Computer Technology Management (CTM) is one approach to this strategy. As shown in Exhibit IV-10, this $25 million contract provides processing operations for CTM. CTM, in turn, has a contract with Libbey-Owens-Ford (LOF) to support all IS needs of the client, including processing and applications management. What is really unique is that CTM was formed by the former CIO of LOF and has, as assets, the former processing equipment and the staff of LOF.

EXHIBIT IV-10

Genix Group Major Contracts

Client	Value ($M)	Length (Years)	Plat	App	Net	DT
Wheeling-Pittsburgh Steel	70	10	X		X	
AM General Division of LTV	30	5	X			
Computer Technology Management	25	5	X			

The Genix Group has been concentrating on providing platform operations outsourcing, and its unique relationship with CTM may be a good diversification. Genix has also been successful in leveraging its platform operations experience into the area of transitional outsourcing. It should be noted, however, that the applications management vendor is always closer to the decision maker in those arrangements. This leaves the platform outsourcing vendor more vulnerable. CTM has a ten-year contract with Libbey-Owens-Ford and only a five-year agreement with Genix.

Genix wins in 1992 continued the strong ties with the two manufacturing market segments. Genix widened its relationship with Wheeling-Pittsburgh Steel by signing a contract to re-engineer the company's voice and data networks. Genix also renewed previous processing operation deals with H.J. Heinz and MichCon, the largest natural gas distribution company in Michigan. In the discrete manufacturing area, Genix renewed contracts with Comshare and Copperweld Corporation, as well as signing a new contract with Scripps Howard, a newspaper publisher.

Outside of the manufacturing industry, Genix won an $11 million contract with Gantos, a national retailer of women's clothing. Genix is providing Gantos with mainframe operations and processing services.

F

Power Computing

Power Computing has succeeded in the process manufacturing vertical industry, as illustrated in Exhibit IV-11. Its one contract in the health services market, with EPIC Healthcare, was a surprise to industry watchers. It does, however, indicate the possibility to diversify, especially for a platform outsourcing vendor.

EXHIBIT IV-11

Power Computing Industry Penetration

Industry	Number of Contracts
Process Manufacturing	10
Health Services	1
Discrete Manufacturing	1

As shown in Exhibit IV-12, there is a little twist to the EPIC Healthcare contract. The client wanted to outsource the upgrading of workstations and minicomputers at the hospital sites and provide for the ongoing support of these facilities. A separate outsourcing contract was awarded to Data General for those services. It is obviously a good fit for DG and represents its first known foray into desktop services.

EXHIBIT IV-12

Power Computing Major Contracts

Client	Value ($M)	Length (Years)	Plat	App	Net	DT
American Ultramar	15	5	X			
Trinity Industries	13	3	X			
EPIC Healthcare	12	5	X			*

Power Computing appears to be pursuing a strategy of concentrating on platform operations outsourcing. In 1992, however, Power showed signs of expansion beyond that strategy by signing a network operations contract with a long-time client, Ultramar Inc. INPUT believes that this expansion is healthy and that Power could benefit by developing alliances with software vendors or acquiring related assets to expand its market base. If Power remains focused only on platform operations outsourcing, it runs the risk of finding itself in a commodity market where it has difficulty differentiating its product from that of the competition. So far it has relied on price and its expertise in data center management.

G
Affiliated Computer Services, Inc. (ACS)

A company that is relatively new to the outsourcing market and that has activity in six vertical industries is an aggressive player. As Exhibit IV-13 indicates, Affiliated Computer Services, Inc. (ACS) is active in retail, health services, banking, discrete manufacturing, telecommunications, and state and local government markets.

Over the past year, ACS has signed many outsourcing contracts in the banking industry. ACS provides a wide range of services to this industry, such as data processing, electronic funds transfer, back-office support services, statement rendering, and a variety of ATM services. ACS also signed contracts in the telecommunications and process manufacturing industries.

This aggressive marketing strategy reflects both an opportunistic approach to the market and the diversity of the companies that were assembled to make up the new company, ACS, four years ago.

EXHIBIT IV-13

ACS Industry Penetration

Industry	Number of Contracts
Banking	5
Retail	2
State and Local Government	2
Telecommunications	2
Discrete Manufacturing	1
Health Services	1

Exhibit IV-14 illustrates that ACS has acquired some large contracts in its short history as an outsourcing vendor. The Southland Corporation contract, in particular, gave ACS the assets it needed to pursue the market aggressively. The company not only assumed the processing assets of the client, it also acquired the office building in which Southland was housed. This provided Southland the much-needed cash with which to emerge from Chapter 11 protection.

INPUT expects ACS to aggressively acquire new contracts in a variety of vertical industries. In late 1991, it undertook extensive reorganization. The reorganization is designed to streamline the structure of an organization that grew rapidly by acquisition and must now be tailored to react rapidly to the market.

H Systematics

Since Systematics has essentially been a provider of outsourcing services to the banking vertical industry exclusively, no industry penetration chart is presented. The influence of its new parent, Alltel Corporation, is beginning to have an effect. The company has organized a separate division to service the telecommunications industry, particularly in administrative operations for the cellular phone business.

EXHIBIT IV-14

ACS Major Contracts

Client	Value ($M)	Length (Years)	Plat	App	Net	DT
International Telecharge	160	10	X			
Southland Corp.	100	10	X			
Trans National Communications	45	5	X			
MD State Benefits	25	5	X			

The new division has signed outsourcing agreements with Unitel Personal Communications, its parent Alltel, and C-TEC Cellular Services, which Systematics acquired in 1991. Systematics handles all data processing for Alltel's telephone operations and markets Alltel's applications software to the telecommunications industry.

Exhibit IV-15 illustrates that the majority of the larger Systematics contracts are in the banking industry. One exception, a $50 million contract with Beverly Enterprises in the health care industry, indicates that Systematics is making a strong effort to expand beyond its traditional market.

Systematics has a good reputation for service and quality of applications software. This stems from the relationship Systematics has developed with Andersen Consulting. Systematics provides the bank data center operations services, while Andersen provides the applications software expertise. As a result, Systematics has a high renewal rate even though the majority of its contracts are only for five years. The Republic contract, cited in the following exhibit, was recently renewed for an additional five years.

Systematics' move into another vertical market is a healthy strategy for this established outsourcing vendor. It is proceeding very conservatively, building on a base of existing knowledge and business contacts in the cellular telephone submarket of the telecommunications industry. Since that segment of the industry is still in its early growth stages, Systematics should be positioned to acquire more business in that area.

EXHIBIT IV-15

Systematics Major Contracts

Client	Value ($M)	Length (Years)	Plat	App	Net	DT
Federal Home Loan Banks (SF)	180	5	X	X		
Beverly Enterprises	50	10	X			
Liberty National Bancorp	20	3	X			
Republic Bank	16	5	X	X		
Prudential Bank (Atlanta)	10	5	X	X		
Anchor Savings Bank FSB	8	6	X	X		

I
Summary

The vendors profiled in this analysis represent the leaders in the market and a representative sample of vendors that have shown strength in smaller niches or show signs of expanding their scope. The review was based on a sampling of contract data, not a complete set. In fact, data for some companies was much more accessible than for others. In all cases, however, INPUT felt that the data available warranted discussion.

As the market evolves, certain trends and patterns emerge:

- The platform operations market is becoming more of a commodity market, where vendors will have a hard time differentiating their product from that of others. A price war may already be under way here.

- Applications operations continues to be the outsourcing option promoted by most vendors. Many prospects are, however, still reluctant to turn over that much control to a vendor.

- Very few vendors have the capability to provide all potential outsourcing services to the client, from platform operations to desktop services. When the need arises, some clients have entered into separate agreements with several vendors to provide the full range of services. The larger vendors are forming alliances or acquiring assets to address this need.
- The first indication of business operations outsourcing potential emerged when Andersen took over accounting operations for BP Exploration. Upon analysis, the National Car Rental agreement with EDS has many of the same elements.

Outsourcing vendors will evolve in response to market demands and according to a growth strategy deemed appropriate by management. Market forces are certain to be the more important of those two drivers. Any analysis that correctly identifies market trends and changes will be of great strategic value to marketing and sales executives.

V

Conclusions and Recommendations

By looking at eight of the most active vertical industry markets and the activity of the major vendors, some measure of the trends in each vertical industry market was derived in the two preceding chapters. Further conclusions and recommendations can be drawn from a look at the market as a whole, particularly by grouping awards activity over the past four years.

A Conclusions

Overall activity in the outsourcing market has increased noticeably in the past four years. What was apparent in the analysis of each vertical industry studied in Chapter III is even more evident when each year is reviewed as a whole. Exhibits V-1, V-2, V-3 and V-4 illustrate the level of activity in each year and identify the milestone contracts in each year. Contracts that introduced a new element to the outsourcing equation, were notable for their size, or were significant for other reasons are identified as milestone contracts. They help to clarify what is going on in the outsourcing market as a whole.

The INPUT data base has only 12 contracts identified for 1989 (see Exhibit V-1). These contracts represent activity in six vertical industries. The total value of these contracts is $1,693 million, which gives an average contract value of $141 million. The value is somewhat inflated because it includes the two FTS 2000 contracts awarded to AT&T and U.S. Sprint. Without these, the average contract value would be lower. The average contract value is also inflated because of the fact that only the larger contracts made it into the public eye in 1989. Today, however, many companies are more open to releasing information about their outsourcing ventures.

EXHIBIT V-1

1989 Outsourcing Activity

Reported Contracts in 6 Vertical Industries	12
Total Contract Value in Data Base ($M)	1,693
Average Contract Value ($M)	141

Milestone Contracts

American Standard—Genix gets first major outsourcing contract in manufacturing

Southland—ACS outsourcing contract includes acquiring physical plant

Milestone awards included the American Standard agreement with Genix and the Southland agreement with Affiliated Computer Services, Inc. (ACS). The first award was significant for two reasons: it was one of the first awards to outsource the entire processing operation; and at a contract value of $500 million for ten years, it remains one of the larger contracts in the discrete manufacturing vertical industry. The Southland award was a case in which the vendor acquired processing and other physical assets, such as Southland's building. It also illustrates how a client can greatly reduce operating losses by outsourcing to a vendor that assumes total responsibility.

In 1990, the pace of outsourcing awards accelerated, as is seen in Exhibit V-2. INPUT's data base contains 67 identified contracts in the eight vertical industries being tracked, with a total contract value of $4,069 million. This represents a set of contracts with an average value of $61 million.

The Eastman Kodak contract with IBM for systems operations prompted more press attention than any other outsourcing contract. This was probably because of the prominence of both parties in their industries. Additional press attention arose later because the initial contract was followed by parallel outsourcing contracts with DEC and Businessland for network management and desktop services, respectively.

EXHIBIT V-2

1990 Outsourcing Activity

Reported Contracts in 8 Vertical Industries	67
Total Contract Value in Data Base ($M)	4,069
Average Contract Value ($M)	61

Milestone Contracts

Eastman Kodak—IBM to manage processing center

Continental Airlines—EDS takes over platform and applications, rights to software

The Continental Airlines contract with EDS was the first of the mega-contracts and one with a very checkered evolution, being on-again/off-again several times until finally evolving into its present form. It is significant not only for its size but also because EDS made a significant cash infusion into Continental's accounts at the start of the contract. In return, EDS has a right to the applications software developed for Continental's reservation system.

In 1991, a total of 64 contracts are represented in the data base, as seen in Exhibit V-3. Contracts are in all eight of the targeted industries and represent a total value exceeding ten billion dollars ($10,376 million). This yields an average contract value of $162 million, a significant increase from the previous year.

The three identified milestone contracts and their significance have been discussed earlier. As mentioned, the General Dynamics/CSC agreement represents the largest outsourcing award to date and also represents the biggest transfer of assets that has been reported, namely three major data centers and 2,600 people. The National Car Rental/EDS agreement is a business operations outsourcing contract that may set some new rules for the partnership relationship between client and vendor. And the Continental Bank contract with IBM, with Ernst & Young as a significant subcontractor, represents a very large bank contract. It had an interesting element reflecting how CIOs have come to view the outsourcing vendor. The CIO who negotiated the agreement with IBM subsequently left Continental

Bank to pursue other opportunities. It was not an unfriendly termination. John Gigerich, Continental's CIO, said: *"It was a logical extension once* [the plan] *was in place. Who builds it is much less important than deciding the what and the how"*

This attitude reflects diminishing suspicion in the ranks of CIOs toward outsourcing vendors and their motives.

EXHIBIT V-3

1991 Outsourcing Activity

Reported Contracts in 8 Vertical Industries	64
Total Contract Value in Data Base ($M)	10,376
Average Contract Value ($M)	162

Milestone Contracts

General Dynamics—CSC takes over processing and applications development

National Car Rental—EDS takes over processing, applications, and customer relations

Continental Bank—IBM takes over processing, Ernst & Young does applications

The number of reported contracts in 1992, as shown in Exhibit V-4, represents a healthy increase over the number reported in 1991. However, the 80 contracts identified in the data base for 1992 had a slightly lower total contract value ($9,381 million) and a lower average contract value ($117 million). These figures should not lead the reader to believe that there was a lack of large contracts signed in 1992.

The largest milestone contract came in the final days of 1992 when ISSC signed the mega-contract with McDonnell Douglas discussed earlier in the report. Perhaps the most important aspect of this contract is that it indicates the continuation of mega-contracts in the outsourcing market, especially in the discrete manufacturing industry. In 1992 there were also record contract values in the banking, insurance, and state and local government industries.

EXHIBIT V-4

1992 Outsourcing Activity

Reported Contracts in 8 Vertical Industries	80
Total Contract Value in Data Base ($M)	9,381
Average Contract Value ($M)	117

Milestone Contracts

McDonnell Douglas—ISSC takes over entire IS infrastructure

Bethlehem Steel—EDS continues to show assumption of business operations responsibility

Blue Cross—MA—EDS signs first mega-contract in the insurance industry

The Bethlehem Steel/EDS contract is of interest because EDS will be taking over the management of a range of networks and systems from the plant floor to the firm's mainframe computers. As it did in the National Car Rental agreement, EDS continues to show an assumption of business operations responsibility in its outsourcing contracts. This expansion of outsourcing services illustrates the trend away from straight platform operations services.

Another milestone contract of 1992 was the $800 million contract EDS signed with Blue Cross and Blue Shield of Massachusetts. EDS will supply and operate all of the systems and equipment needed to process claims, maintain membership records, respond to customer inquiries and perform necessary administrative and management functions. This contract is the first of its kind in this industry, but will definitely not be the last. Other health care providers are sure to see the benefits of using an outsourcing vendor to provide transaction processing. Watch for a mega-contract to be signed soon in this industry outside the U.S. when CSC and Australia's largest insurance provider finalize negotiations on a potential $1.5 billion contract.

B

Projections

The above data are valuable only if they can lead to intelligent projections about the future trends in the outsourcing market. Obviously, user expenditures in this marketplace continue to expand at a healthy rate in spite of the economic downturn in the general U.S. economy. In fact, the downturn may be having a stimulating effect on the outsourcing market growth rate as more organizations choose outsourcing as a means of reducing their capital expenditures and information systems operating expenses.

The data suggest that a bandwagon effect stimulates market growth also. Awards data, analyzed by N. Venkatraman and Lawrence Loh and released as a working paper at the MIT Sloan School of Management, suggests this. The working paper finds a significant increase in the rate of outsourcing awards after Eastman Kodak outsourced its processing operation to IBM and its network management to Digital Equipment.[1] A brief review of the awards data compiled as part of this report shows the same pattern.

The next step is to predict events that will trigger further bandwagon effects. Though it is too early to be certain, several recent awards have the potential to be such agreements:

- Continental Airlines' agreement with EDS represents the largest investment to date that a vendor has made in a client's assets.

- National Car Rental represents the assumption of not only software management and processing responsibilities by EDS, but also management of the actual reservations operations. The clerks in the reservation booths work for EDS. This assumption of business operations responsibility has its parallel in the assumption of all accounting functions by Andersen Consulting for BP Exploration in the U.K.

- The McDonnell Douglas/ISSC deal follows in the tradition of the General Dynamics/CSC mega-contract. With both deals reaching an estimated value of $3 billion, they are by far the largest outsourcing deals to date and are particularly significant because of the large number of development staff transferred to the vendor. Despite the size of the commitment, both McDonnell Douglas and General Dynamics feel that they can reduce IS expenditures by turning over all processing and most applications systems development and maintenance to an outside vendor.

---

[1] N. Venkatraman and L. Loh, *Outsourcing as a Mechanism of Information Technology Governance: A Test of Alternative Diffusion Models*

- The Continental Bank of Chicago deal with IBM is also a large one. More significant, however, may be Ernst & Young's involvement. Ernst & Young has been seeking to enter the ranks of outsourcing vendors for some time. Its first significant entry was as IBM's subcontractor for the software development effort at Continental Bank. This may well be a route E & Y continues to follow.

Another emerging trend is that of transitional outsourcing. A transitional outsourcing agreement is usually a short-term contract that allows the client to migrate its IS environment to a new platform or set of applications. Smaller contracts such as the Revlon/Andersen and Playtex/SunGard deals are examples of this type of outsourcing. Andersen, and Genix in particular, has found transitional outsourcing to be a profitable niche that does not require it to get caught up in a losing battle of processing power with vendors like ISSC or EDS.

C
Recommendations

The user motivations and vendor strategies that emerge from this review of major awards in the last three years leads INPUT to make the recommendations summarized in Exhibit V-5 to vendors active in the outsourcing market.

EXHIBIT V-5

Recommendations

- Be prepared to assume risks
- Complement capabilities with alliances
- Expect longer, larger contracts
- Look for more than processing operations

More and more, the leading vendors are willing to assume substantial risks in order to close the deal with the prospect. This has become a standard operating practice with many of the outsourcing vendors, one which helps differentiate them from the competition. The larger vendors generally have more resources with which to play this trump card. There are instances when:

- Data centers have been acquired from the prospect for cash
- More than 2,000 programmers and operations people were transferred to the vendor payroll
- Part of the agreement included a cash outlay by the vendor for future software rights

In all these cases, the vendor is betting on the eventual business viability of the client. To date, no client organization has failed, though several that were under Chapter 11 protection during the outsourcing negotiations have emerged as viable firms. There is little doubt that an organization that chooses to outsource solely to alleviate its short-term financial problems will eventually fail. The outsourcing vendor involved will be left holding assets it must then convert to other profitable ventures. The outsourcing market has reached the level of maturity in which all viable vendors must assess the risks involved in each proposed deal realistically, and be ready to turn some down.

Vendors can address the risk while enhancing their own positions in the marketplace by forming alliances with other participants in the market who can complement the primary vendor's resources. Even IBM (ISSC) needed to team with Ernst & Young to meet the requirements of Continental Bank of Chicago. IBM's primary motivation in this case was capabilities enhancement, but it also benefited by sharing the risks with another vendor.

Vendors will need to continue to use this double-benefit tactic to address the market demands while reducing their own exposure.

The move to larger contracts seems to be accelerating. The General Dynamics, Continental Bank, United Technology, and McDonnell Douglas contracts are four recent examples of very large contracts, generally awarded for long terms of at least ten years. As the trend toward applications operations accelerates, in which the vendor is responsible for the applications software development as well as the processing platform, the value of awards will increase. As network management and desktop services become an intrinsic part of the outsourcing agreement, this will also continue the trend toward larger contracts.

As contracts become bigger and risks increase, another trend is likely to develop. The platform operations portion of the entire outsourcing equation is likely to become a commodity-priced item. This is a real threat to the vendor that remains primarily a platform operations provider. There will be increasing need for each vendor to differentiate itself from the competition, be it by industry expertise or software availability. Recent examples indicate that some prospects are negotiating hard when they are only looking for platform operations. In those cases, the vendor may be seriously impacting profit margins in order to win. The platform vendor can enhance its position most rapidly by forming alliances. Acquiring complementary assets is another viable—though more costly—solution.

In summary, the outsourcing market continues to require more sophisticated approaches as it expands and matures. Vendors have to assess risks more carefully. They need to manage their own assets and those of their alliance partners effectively. Finally, they must recognize the need to have financial resources in place that allow them to acquire the client's assets when required. Successful outsourcing vendors will have good answers for these and other market challenges in the coming year.