FINANCIAL MANAGEMENT AND PLANNING SERVICES AND SOFTWARE MARKETS



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# FINANCIAL MANAGEMENT AND PLANNING SERVICES AND SOFTWARE MARKETS

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## FINANCIAL MANAGEMENT AND PLANNING SERVICES

#### AND SOFTWARE MARKETS

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## AND SOFTWARE MARKETS

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# I INTRODUCTION

#### I INTRODUCTION

- This report is produced by INPUT as part of the Market Analysis Service and analyzes the market for computer aided Financial Management and Planning Services.
- This area of research was selected because of high client interest. Financial management and planning services and software is one of the fastest growing computer services market areas.
- The purpose of this study is both to analyze present and future markets and to provide necessary technical background and recommendations for market entry.
- Before the research began, interested INPUT clients were asked to suggest particular questions and specific areas of interest to be incorporated in the study. The suggested points were included in the interview questionnaire.
- Interviews were conducted during November 1978 through January 1979.
- The research conducted in this report included a series of interviews as specified in Appendix A. Separate interview questionnaires were used for vendors and users. Copies of the questionnaires are included in Appendix D.
- Definitions of terms used in this report are presented in Appendix B.

• Inquiries and comments on the information presented in this report are invited from clients.

## II EXECUTIVE SUMMARY

#### II EXECUTIVE SUMMARY

#### A. SCOPE AND KEY FINDINGS

#### I. FMPS CHARACTERISTICS

- Financial management and planning systems (FMPS) is a growth market for both computer services and software products vendors.
  - FMPS are in demand for business and financial planners who use the systems for developing financial planning and forecasting applications.
  - It is a relatively new market, with 60% of the users interviewed in this study having begun using FMPS RCS services within the last three years.
- FMPS include software packages that are used to model all or part of a company's financial planning activities. FMPS software is used to create end user solutions to financial planning problems, either directly or through the generation of end user computer programs that in turn are executed to forecast the desired financial or planning data. Products such as FORESIGHT, SIMPLAN, IFPS, FAL II, and PROPHIT II are all characterized as FMPS.
- The market for FMPS computer services and software products is differentiated from the market for financial reporting systems, such as Management

Information Systems (MIS) and from the market for general accounting systems, such as general ledger (GL). The differentiating factor is the ability of FMPS systems to forecast or project financial or planning data into the future under conditions of uncertainty.

#### 2. MARKET FORECAST

- The FMPS market will expand from \$185 million in 1978 to \$565 milion in 1984 at an average annual growth rate (AAGR) of 25%. This rate is greater than the 20% growth forecast by INPUT for all RCS services, and the 21% growth rate forecast by INPUT for all software products.
- The higher growth rate is a result of:
  - More users are potential targets for FMPS.
  - Vendors are investing in new products.
- Several vendors of FMPS anticipate even higher growth rates, as high as 50% growth in 1979 vs. 1978. This high growth rate will not be experienced by all FMPS because:
  - These vendors have advanced products which have relatively higher potential.
  - They anticipate growth in market share as well as overall market growth.
- As shown in Exhibit II-1, remote computing services (RCS) will continue to dominate the marketplace with an average annual growth rate of 26%. This will occur because RCS vendors are both expanding their offerings down to smaller companies and are responding to technology by shifting to RCS vendor supplied on-site minicomputers.



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- Over the forecast period, RCS will gain market share as professional services lose market share.
- Turnkey revenues are included in RCS.
- The market for software products for both in-house and RCS use will continue to grow at a rapid rate (AAGR 23%).
- Professional consulting services are offered in conjunction with both software products and RCS services. Within both vendor services types, the proportion of expenditures for professional services will decrease as vendors develop and market a wide variety of financial application packages for lease.
- FMPS services are delivered almost entirely as interactive remote computing services. There is no measurable market for batch or for facilities management services.
- Manufacturing, both process and discrete with 1978 FMPS annual expenditures of \$63 million growing to \$219 million in 1984 is the leading industry sector (Exhibit II-2).
- The manufacturing sector, together with the banking and finance, and insurance sectors, will increase in market share from 57% in 1977 to 64% in 1984.
  - These sectors are growing at an AAGR of 28%.
  - Other sectors with significant revenues include utilities, distribution, and government.
- 3. INFLUENCING FACTORS
- A number of factors explain the high growth (25% AAGR) for FMPS services and software products.

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#### EXHIBIT II-2

# COMPUTER SERVICES EXPENDITURES FOR FINANCIAL MANAGEMENT AND PLANNING SERVICES AND SOFTWARE PRODUCTS BY MARKET SECTOR

1978-1983



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- Technology in the form of sharply cheaper microelectronic memory and circuitry has greatly reduced both the processing cost of and class (size) of computers which can effectively execute financial planning models.
- Uncertain economic conditions (recession) and continued inflation require more detailed and longer range financial and strategic planning, causing financial executives to turn to computer models to provide a wider range of possibilities for making decisions.
- The education and training of more recent business graduates has included exposure to and experience in computer aided decision making; hence, financial and planning executives are both aware of and predisposed to using FMPS services and products.
- Government compliance, particularly in financial areas, including wage and price control is forcing companies to both save large quantities of data and to use the data to justify past and forecast future financial and economic decisions.

#### 4. USER CHARACTERISTICS

- Current users anticipate increased use of FMPS services and software. The majority felt that usage would increase at least 25% per year over the next three to five years.
- Over half of users interviewed used either RCS services exclusively or a combination of installed in-house FMPS software and RCS services.
- Although only a quarter of the users interviewed indicated intentions of changing their mode of service delivery, the major portion (80%) of those contemplating change were planning to shift to mincomputers, either their own or RCS vendor supplied on-site mini systems.

- Users emphasize "ease of use" as a prime factor in FMPS selection. Price is relatively unimportant.
- Another prime factor in vendor selection is how well the user believes the vendors' marketing and consulting personnel understand his problems and support rapid development of effective solutions.
- Adoption of FMPS software for financial planning requires corporate approval. Financial officers (Vice President Finance, Controller, Treasurer) and frequently for smaller Fortune 1000 companies, the President, make the real decision.
- Users are looking for FMPS software that can be easily integrated at the high order language level with DBMS, graphics, report writer, and statistics packages. Providing interface capability requiring programming knowledge of the other desired system is not what users want.

#### 5. VENDOR CHARACTERISTICS

- FMPS vendors are highly optimistic about the potential of growth in the marketplace. They felt that revenues will grow by 50% in 1979 and nearly triple by 1983.
- Nearly one-third of the vendors interviewed obtained the major portion of their FMPS revenues from top Fortune 500 companies.
- Most vendors interviewed focused on specific market sectors; 80% toward banks, half toward manufacturing, and half again toward other finance.
- A significant number (40%) of vendors were or were planning to offer FMPS systems on minicomputers either as turnkey systems or on an on-site vendor supplied mini.

- Most vendors (60%) had or planned to interface their FMPS software with one or more DBMS systems.
- Nearly all of the vendors felt that professional consulting services were either very important or essential in selling FMPS services and products.

#### B. COMPETITIVE STRUCTURE

- The market for FMPS services and products is serviced by two vendor types: computer services vendors offering RCS services, almost exclusively interactive, and software products vendors offering FMPS products for in-house installation and to RCS vendors.
- Technology in the form of the minicomputer is blurring vendor differentiation.
  - The 1978 market for FMPS computer services of \$140 million is widely held by more than ten vendors. Although GEIS, SBC, and ADP are the largest vendors, holding nearly 60% of this market segment, the opportunities for market entry through selective specialization and product differentiation are great.
  - The current market for FMPS software products is shared among more than a dozen vendors. Foresight Systems and Social Systems, Inc. (SIMPLAN) are the leading vendors holding less than 30% of the \$30 million market. Again, ample oportunity exists for market entry either through integration of FMPS modeling languages with effective DBMS, graphics, report writer and statistics packages, or through application specialization in selected market segments.

## C. RECOMMENDATIONS

#### I. TECHNICAL RECOMMENDATIONS

- Software products vendors would do well to streamline and adapt their FMPS packages to minicomputers. The conversion will be most attractive for plug compatible minis.
- Software product vendors should develop both new FMPS software and specialized financial application packages on minis offering the system to business planners on a turnkey basis. This approach will prove most effective with Fortune 1000 companies.
- RCS vendors should offer FMPS services on vendor supplied on-site minis. The on-site mini should operate both in a standalone mode or on-line to the vendor's RCS network.
- Both RCS and software product vendors need to enhance high order language FMPS to include access to DBMS using Higher Order Language (HOL) statements.
- New FMPS products should be developed rather than relying on interfacing additions to existing products:
  - Some current products lack essential features.
  - Some products are too inflexible.
- New products should emphasize:
  - User orientation. The system must be easy to use.

- Interactive man/machine communications. Guide the user through model development and execution.
- Comprehensive vendor supplied functions for financial, risk and statistical analysis, for graphics, for reporting, and for data management.

#### 2. MARKETING RECOMMENDATIONS

- Both RCS and software product vendors can expand market oportunities by using their FMPS software to develop application packages that meet either specific cross industry (government compliance) or industry specific (utilities sector, long range capital planning) requirements.
- RCS vendors need to target their FMPS marketing efforts to specific industries. Marketing personnel must be trained to understand the user's problems.
- RCS vendors can expand revenues by searching for effective software products designed by financial experts to meet specific needs. Additional market coverage can be gained by offering the experts' services as consultants.
- Vendors can gain access to key corporate financial officers through offering financial planning seminars where the financial executive gets hands on experience in strategic planning using interactive FMPS packages.
- RCS vendors should develop or obtain specialized financial economic or demographic data bases which can be offered in conjunction with FMPS developed software to financial and business planners. Such differentiated services can be value priced.

III MARKET ANALYSIS AND FORECAST

#### III MARKET ANALYSIS AND FORECAST

#### A. MARKET STRUCTURE

#### I. FINANCIAL MANAGEMENT AND PLANNING SYSTEMS (FMPS) TECHNIQUES

- FMPS services and software aid the financial and business planner in building a computer model of one or more areas (applications) of the company's business.
- Starting with one or more sets of assumptions, the planner next defines the variables to be forecasted. He next determines the logic or equations that interrelate the assumptions and the variables.
- Where relationships between variables are not finitely known, the business planner will use statistical techniques to estimate the interrelationships.
- If the data to be input is small, the planner may enter the data as a file, whereas where large volumes of company or external data are required for forecasting, the financial analyst will access the data through a data base management system (DBMS).
- The last element of a financial model is displaying the results either through computer graphics or a printed report.

- The model building process has become almost entirely interactive. The business planner frequently uses remote computing services (RCS) to accomplish this task. Alternatives are in-house timesharing, or more recently, minicomputers.
- FMPS model execution has also become virtually all interactive. RCS revenues are divided between the model building process (general business application) and model execution (specialty).

#### 2. TYPES OF FMPS PRODUCTS AND SERVICES

#### a. In-House Models

• Some users have used standard programming languages to program their financial models for in-house use. Most user developed financial and business planning models are coded in FORTRAN, primarily because of the widespread availability of FORTRAN mathematical and statistical library routines, and the fact that the models themselves are sets of mathematical (logical) equations. FMPS models home grown in this manner are difficult to understand and even more difficult (even at times for the author) to revise.

#### b. Fixed Packages

• Initially, FMPS software vendors offered their less sophisticated users mostly fixed or predetermined forecasting models and report display methods. The models were easy to use but limited in scope. The inflexibility of the system narrowed its market potential.

#### c. Table Driven Systems

• Vendors next offered FMPS systems based on table, matrix and report generation subsystems. These systems were an outgrowth of processing large volumes of tabular data which required frequent updating. The systems have

been expanded to handle serial calculations on designated rows and across columns.

#### d. High Order Modeling Languages

- More recently vendors are offering FMPS packages based on high order financial modeling languages. The language permits the model to be developed in terms (words, symbols, functions) familiar to the business planner. Significant features of advanced FMPS software are:
  - A comprehensive modeling language.
  - Ability to reorder the equations.
  - The ability to solve simultaneous equations.
  - Detection of propagation errors.
  - Library of standard business and financial functions.
  - Comprehensive report writer.
  - Comprehensive graphics package.
  - e. Application Packages
- Using high order modeling languages vendors have produced application packages to solve selected cross-industry problems for financial planners (such as replacement cost accounting).
- High order modeling languages have also permitted vendors to develop financial management and planning packages which are as easy for business planners for Fortune 1000 and below size companies to use as were the fixed systems, but where the assumptions and statistical estimation methods are easily alterable at the user's request, and by the vendor's consultant.

#### 3. TYPES OF FMPS VENDORS

#### a. Remote Computing Services Vendors (RCS)

- RCS vendors offer FMPS software in conjunction with remote processing. The processing is almost exclusively interactive.
- Most RCS vendors offer FMPS packages without either package lease or premium charge for RCS usage.
- Professional consulting services are an important ingredient of both selling and supporting the business planner. Professional services are used for both assisting the planner in getting started and at times programming the user specified model.
- RCS vendors tend to specialize in specific market segments.
- RCS vendors are offering FMPS software on vendor supplied on-site minis.
  - b. Software Product Vendors
- Software product vendors offer FMPS software for in-house installation and for use through selected RCS vendors.
- Software product vendors charge an installation license fee and a monthly maintenance fee (beginning usually one year after installation).
- Professional consulting services are an important ingredient for selling and supporting the business planner. Emphasis is placed on training and helping the user get started.
- Formation and support of user's groups is another ingredient of customer support.

- Software product vendors are offering FMPS software on minicomputers.
- Software product vendors are offering cross industry and industry application packages programmed in the high order modeling language.

#### 4. MAJOR INDUSTRY SECTORS

#### a. Manufacturing Sector

- Most Fortune 1000 companies in manufacturing do some computer aided financial management and planning. It is the leading sector for using FMPS services and software.
- Multi-national firms use the international data network of RCS vendors for consolidation and for reporting financial data.
- Large companies use FMPS services and products within major divisions for such applications as budgeting, product forecasting, and cash management.
- Corporate planners make use of financial data bases in conducting merger and acquisition studies.

#### b. Banking And Finance Sector

- The banking and finance sector is a heavy user of FMPS services and products of all types.
- Commercial banks make extensive use of economic and financial data bases for such applications as fund planning, for international fund placement, and for interest rate determination.
- Savings and Ioans (S&Ls) use specialized FMPS software packages to forecast industry and individual S&L fund flows, home mortgage rates, savings rates, and secondary money market requirements.

- Brokerge firms use FMPS services coupled with financial data bases for portfolio analysis, for margin forecasting, for industry evaluations, and for forecasting money market instrument valuation.
- Insurance companies use FMPS services to forecast loan demand, portfolio valuation, and inflation effects on annuity offerings.

## c. Public Utility Sector

- Business planners in public utilities use FMPS services. The long range planning horizon for public utilities differs from that of other business sectors. Public utility planners have by and large developed their own financial planning models.
- Planners use FMPS services to do long range capital budgeting. They use financial models to forecast utility rates for their frequent appearances before the PUC. Financial planners use models to forecast the price, interest rate, and terms of utility bond issues.
- Financial planners at public utilities need access to financial and economic data bases for service planning, forecasting internal rate of return, and long term cost of capital.

#### d. Distribution Sector

- Wholesalers and retailers use a wide variety of FMPS services and products.
- Financial planners develop financial models to forecast inventory turnover and cash flow.
- Business planners use economic data bases with industry models to forecast site location and distribution channels.

• Corporate analysts use financial data bases and financial models to both analyze performance of competition and for merger/acquisition analysis.

#### e. Governments

- Business economists in state and federal governments use FMPS services.
   They develop their own economic and financial models.
- Business economists use FMPS services for aggregate budgeting and aggregate economic planning.
- Planners at regulatory agencies use FMPS models for setting tariffs.
- Analysts in government agencies use FMPS services to do a wide variety of economic forecasting of the cost effectiveness of alternate policy decisions.

#### B. MARKET FORECAST

#### I. FORECAST OF COMPUTER SERVICES AND SOFTWARE

- The 1978 market for FMPS services and software is \$185 million. The market will grow rapidly at an average annual growth rate of 25% over five years to a 1983 forecast of \$565 million (Exhibit III-1).
- The market for remote computing services is comprised of general business services (FMPS modeling software) and industry specialty services (company/industry application packages). Industry specialty services is growing at a more rapid rate (28% AAGR) because of new market opportunities to supply vendor developed industry application packages to Fortune 1000/100 companies.

#### EXHIBIT III-1

## FORECAST OF FINANCIAL MANAGEMENT AND PLANNING

#### SERVICES AND SOFTWARE

## BY SERVICE TYPE

#### 1978-1983

SERVICE TYPE	1978 (\$M)	1983 (\$M)	AAGR
REMOTE COMPUTING SERVICES			
GENERAL BUSINESS	\$ 50	\$140	238
INDUSTRY SPECIALTY	90	310	· 28
FACILITIES MANAGEMENT	0	0	
BATCH PROCESSING	0	0	
TOTAL PROCESSING	140	450	26
SOFTWARE PRODUCTS			
SYSTEMS	0	0	0
APPLICATIONS	30	85	23
,			
TOTAL SOFTWARE PRODUCTS	30	85	23
PROFESSIONAL SERVICES	15	30	15
TOTAL	\$185	\$565	25%
- FMPS computer services are delivered almost exclusively on an interactive basis. Facilities management and batch processing are not service types used by financial and business planners.
- The market for software products, all applications oriented, is growing at the same rate (AAGR 23%) as general business services as both RCS and software product vendors extend their markets down to Fortune 1000/100 and below companies.
- The market for professional services is divided between RCS and software product vendors.
- Professional services are part of both RCS and software product vendors offerings. Development of industry application packages in FMPS modeling languages will reduce user dependence on professional services to do user specific packages.

#### 2. INDUSTRY FORECAST

- The manufacturing sector which includes both process and discrete companies is the largest market segment for using RCS services (Exhibit III-2).
- The banking and finance sector, which includes commercial banks, S&Ls, brokerage, credit, and insurance companies coupled with the manufacturing sector account for over half (54%) of the RCS revenue base.
- The banking and the manufacturing sectors are also the fastest growing. With 1983 expenditures of \$280 million, these sectors will become 62% of the future revenue base.
- Although current expenditures are centered around Fortune 500/50 companies, by 1983 RCS expenditures will be across Fortune 1000/100 and even smaller companies.

#### EXHIBIT III-2

# FORECAST OF FINANCIAL MANAGEMENT AND PLANNING REMOTE COMPUTING SERVICES

#### BY INDUSTRY SECTOR

1978-1983

INDUSTRY SECTOR	1978 (\$M)	1983 (\$M)	AAGR (%)
MANUFACTURING	\$ 45	\$167	30%
BANKING AND FINANCE	30	111	30 ·
UTILITIES	15	44	24
DISTRIBUTION	10	28	23
GOVERNMENTS	18	45	20
ALL OTHERS	22	55	20
TOTALS	\$140	\$450	26%

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- Although public utilities are significant users of RCS services, including accessing financial and economic data bases, thus far they have developed their own industry financial management and planning systems.
  - The same conditions apply for selling FMPS software packages to governments, hence, the low level of sales and growth apply (Exhibit III-3).
  - Again, the manufacturing and banking sectors dominate (66%) FMPS software product expenditures.
- The forecast of FMPS professional services by industry sector (Exhibit III-4) indicates a rather thin market in all but the banking and finance and manufacturing sectors.

# C. INFLUENCING FACTORS

#### I. GOVERNMENT COMPLIANCE

- The requirements for government compliance increase users' needs for specific financial management and planning application packages. Saving data for existing, anticipated or even unanticipated (what if) requirements also increases the need for data base management systems that are easy to use with FMPS software.
- By tracking what is going on in the regulatory and congressional area, alert vendors can develop responsive FMPS application packages which make it easy for users to comply.
- SEC compliance is a good area for FMPS application package development. Recent regulation concerning replacement cost accounting is a good example of a requirement that fostered the development of a specialized software

#### EXHIBIT III-3

#### FORECAST OF FINANCIAL MANAGEMENT AND PLANNING

#### SOFTWARE PRODUCTS

#### BY INDUSTRY SECTOR

#### 1978-1983

INDUSTRY SECTOR	1978 (\$M)	1983 (\$M)	AAGR (%)
MANUFACTURING	\$12	\$38	26%
BANKING AND FINANCE	8	24	25
UTILITIES	1	2	15
DISTRIBUTION	3	7	20
GOVERNMENTS	2	4	15
ALL OTHERS	4.	10	20
TOTALS	\$30	\$85	23%

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## EXHIBIT III-4

# FORECAST OF FINANCIAL MANAGEMENT AND PLANNING

# PROFESSIONAL SERVICES

# BY INDUSTRY SECTOR

#### 1978-1983

INDUSTRY SECTOR	1978 (\$M)	1983 (\$M)	AAGR (%)
MANUFACTURING	\$ 6.5	\$14.0	18%
BANKING AND FINANCE	4.0	9.0	18
UTILITIES	0.5	0.8	10
DISTRIBUTION	1.0	1.8	12
GOVERNMENTS	1.0	1.6	10
ALL OTHERS	2.0	2.8	8
TOTALS	\$15.0	\$30.0	15%

package. Another attractive area is merger and acquisition analysis and compliance.

- The implementation of wage and price guidelines will require more financial planning and forecasting on the part of process and discrete manufacturers.
- Establishment of ERISA is still causing major adjustments in the financial sector as fund managers strive to prove prudence in retirement trust fund administration.
- Adoption of wage and price control as a means to combat inflation will require another array of FMPS industry specific packages.

# 2. ECONOMIC CONDITIONS

- The large uncertainty in the marketplace coupled with continued inflationary pressures increase the need for corporate financial executives to do more comprehensive financial management and planning.
- Capital budgeting is an area receiving greater attention by corporate executives, particularly in the heavy equipment and public utility industries.
- Uncertainty in money markets makes corporate financial decisions even more sensitive to foreign exchange rates, and valuation determination.
- Corporate financial executives need to make greater use of economic data bases in forecasting internal cost of capital, and total return on investment under conditions of uncertainty.

## 3. IMPACT OF TECHNOLOGY

• The rapidly decreasing cost of micro electronics and semiconductor memory has resulted in the availability of very powerful minicomputers. The minicomputers have both the memory size to operate FMPS models and the speed to execute user applications in a cost effective manner.

- The availability of FMPS software on minicomputers means that companies at the lower end of the Fortune 1000/100 (or even below) can now afford to do computer aided financial management and planning.
- Larger companies can take advantage of the economics of the new "megaminis" over remote computing costs by using on-site vendor supplied minis. Financial executives can still gain access to external economic and financial data bases via the vendors' RCS network.
- The availability of powerful data base management systems both on large scale computers (IBM 3032) and on minis (HP3000) encourages business planners to access large volumes of company data in product and sales forecasting. DBMS software enables financial planners to develop new applications which would never have been considered before.

### 4. EDUCATION

• Financial and business planning executives with MBAs or college trained as business economists are rising in business organizations. They are becoming corporate decision makers. More and more of these executives have college background in both using computers and in more sophisticated quantatative analytic techniques. These executives will both support the use of FMPS at the corporate level and will hire business analysts and economists having computer and quantatative analytic skills. The net result is an acceleration in the use of FMPS services and software.

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IV ANALYSIS OF USERS

# IV ANALYSIS OF USERS

## A. USE OF FINANCIAL MANAGEMENT AND PLANNING SYSTEMS (FMPS)

- The widespread use of FMPS systems whether by using software packages inhouse or via remote computing services (RCS) is a recent occurrence. The majority (60%) of respondents began using FMPS systems within the last three years (Exhibit IV-1).
- The growing use of computer aided financial management and planning indicates the good market potential for innovated FMPS computer services and software.

## B. EDP EXPENDITURES FOR FMPS SERVICES AND SOFTWARE

- The average annual EDP expenditures for those respondents using remote computing services (RCS) was \$33,000.
- The average annual EDP expenditures for those respondents buying software packages for in-house use was \$18,000.
- Respondents felt that their level of EDP expenditures for FMPS services and software was rising rapidly. Once the system was in and operating smoothly

# RESPONDENTS' FIRST USE OF FINANCIAL MANAGEMENT AND PLANNING SYSTEMS (FMPS)

YEAR OF FIRST USE	PROPORTION OF RESPONDENTS (१)
1967	28
1 971	6
1973	10
1 97 4	15
1975	7
1976	31
1977	11
1978	18
TOTAL	100%

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its use catches on in other areas of the company. The majority (65%) of the respondents felt that their level of expenditures would rise at least 25%/year over the next three to five years (Exhibit IV-2).

#### C. IN-HOUSE VERSUS RCS USE OF FMPS

#### I. CURRENT METHOD

- Although nearly half (48%) used in-house systems (including minicomputers) exclusively, half also used either RCS services exclusively or a combination of both (Exhibit IV-3).
- The data reflects that there are good markets for both computer services and software products for financial management and planning services.

#### 2. FUTURE INTENTIONS

• Only a quarter of the respondents planned to change their mode of FMPS operation in the near future. However, the shift was heavily toward in-house systems (Exhibit IV-4).

#### D. USE OF MINICOMPUTERS FOR FMPS

• Respondents were interested in applying minicomputers to the financial management and planning process. Those respondents (20%) who had near term plans to use minicomputers were considering both turnkey systems and RCS vendor supplied minis which would still have access to economic and financial data bases through the vendor RCS network.

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# RESPONDENTS' EXPECTATIONS FOR CHANGE IN LEVEL OF EDP EXPENDITURES FOR FINANCIAL MANAGEMENT AND PLANNING OVER THE NEXT 3-5 YEARS

CHANGE	EXPECTED INCREASE/ YEAR (%)	PROPORTION OF RESPONDENTS EXPECTING INCREASE (%)	TOTAL PROPORTION OF RESPONDENTS (१)
EXPECT INCREASE			79%
	<10%	13%	
	15-20	21	
	25	25	
	50	8	
	> 5 0	33	
NO CHANGE	0%		21%
TOTAL		100%	100%

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# RESPONDENTS' CURRENT MODE OF FMPS UTILIZATION

MODE	PROPORTION OF RESPONDENTS (%)
IN-HOUSE	48%
REMOTE COMPUTER SERVICES	
INTERACTIVE	25
BATCH	2
BOTH IN-HOUSE	
AND RCS	25
TOTAL	100%

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# RESPONDENTS' FUTURE PLANS TO CHANGE CURRENT SOURCE OF FMPS OPERATION

FUTURE PLANS	PROPORTION OF RESPONDENTS (%)
PLAN TO CHANGE	
-PLAN TO CHANGE TO	
IN-HOUSE	20%
-PLAN TO CHANGE TO	
RCS VENDOR	3
-COULD GO EITHER WAY	3
NO PLANS TO CHANGE	74
TOTAL	100%

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- Financial executives want their own systems.
- Financial executives make the key "buy" decisions.

# E. APPLICATIONAL USE OF FMPS

- Respondents used FMPS software packages for a wide variety of applications (Exhibit IV-5).
  - Financial management and planning applications are predominant.
  - There is indication that other areas of the company such as facilities planning, foreign exchange, and leasing, are participating in the planning process and represent targets of opportunity for alert FMPS vendors.

## F. VENDOR/PRODUCT SELECTION BY USERS

## I. FACTORS

- Respondents were asked to separately assess on an equivalent scale of 100 (most important) to 1 (least important) factors they would consider important in selecting an FMPS services or software vendor. Their assessment is shown in Exhibit IV-6.
- The fact that neither software package purchase price or processing cost are key factors implies that there is a good deal of price elasticity in the marketplace.

# RESPONDENTS' APPLICATIONAL USE OF FMPS

APPLICATION	PROPORTION OF P.ESPONDENTS (%)
LONG RANGE PLANNING	74%
OPERATING BUDGETING	65
CASH REQUIREMENTS FORECASTING	62
CAPITAL BUDGETING	59
SOURCE AND USE OF FUNDS	59
CASH MANAGEMENT	53
PRO FORMA	50
INVESTMENT ANALYSIS	44
SALES FORECASTING	44
CONSOLIDATIONS	38
LEASE/BUY	32
MARKET PLANNING	27
MERGER/ACQUISITION ANALYSIS	24
FACILITIES PLANNING	18
FOREIGN EXCHANGE	15

# RESPONDENTS' ASSESSMENT OF IMPORTANT FACTORS IN SELECTING FMPS SERVICES AND SOFTWARE

FACTORS	DEGREE OF IMPORTANCE (100)
REPORTING CAPABILITIES	84
FORECASTING TECHNIQUES	82
LOCAL SUPPORT	77
DOCUMENTATION	73
TRAINING	72
DATA BASE INTERFACE	66
NETWORK CAPABILITY	61
CONSULTING	60
PURCHASE PRICE	53
PROCESSING COST	52
AVAILABLE FINANCIAL DATA BASES	48
GRAPHICS CAPABILITIES	46
USERS GROUP	44

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• Availability of financial and economic data bases is important to only the large Fortune 500/50 companies, particularly those in the financial sector.

### 2. METHODS

- The selection process is by and large informal. The respondent usually becomes aware of a product/service that might fill his need through talking to other users, or by a vendor demonstration.
- The real key to vendor selection is how the vendor's marketing and support personnel assess the user's problem, and how the vendor shows the user how easily and efficiently his system will accomplish the job.
- The most frequent methods respondents use to select vendors are shown in Exhibit IV-7. Typical respondent remarks on vendor selection methods are shown in Exhibit IV-8.

# G. WHO BUYS/USES FMPS SERVICES/PRODUCTS

- Selection of a financial management and planning system is a key corporate decision made at the highest levels. The ability to present concepts in terms corporate executives understand is a key to successful marketing.
- Key executives who approve purchase of FMPS services/products are shown in Exhibit IV-9. Clearly, financial officers (Vice President Finance, Controller, Treasurer) and frequently, for Fortune 1000 companies, the President, are the "big" decision makers.
- FMPS are used by a wide variety of financial and planning executives (see Exhibit IV-10).

# HOW RESPONDENTS CHOOSE A FMPS VENDOR/PRODUCT

METHOD	NUMBER OF RESPONDENTS MENTIONING
TALK TO OTHER USERS	14
VENDOR DEMONSTRATION	12
INFORMAL PROPOSAL	9
SAMPLE PROBLEM	6
FORMAL PROPOSAL	4

#### RESPONDENTS' REMARKS ON METHODS OF FMPS

#### VENDOR/PRODUCT SELECTION



# KEY RESPONDENT EXECUTIVE WHO APPROVES BUYING FMPS SERVICES/PRODUCTS

TITËE	PROPORTION OF RESPONDENTS (%)
VICE PRESIDENT FINANCE	25%
CONTROLLER	23
TREASURER	18
PRESIDENT	13
FEDERAL DEPARTMENT HEAD	7
EDP MANAGER	5
PLANNING COMMITTEE	5
VICE PRESIDENT PLANNING	2
MANAGER FINANCIAL SYSTEMS	2
TOTAL	100응

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# KEY RESPONDENT EXECUTIVES WHO USE FMPS SERVICES/PRODUCTS

TITLE	NUMBER OF RESPONDENTS (1)
MANAGER FINANCIAL ANALYSIS/ PLANNING	12
CONTROLLER	8
STAFF FINANCIAL/BUDGET ANALYST	5
ASSISTANT CORPORATE CONTROLLER	4
BUSINESS ECONOMIST (FEDERAL AND STATE)	4
DIRECTOR FINANCIAL INFORMATION SYSTEMS	2
DIRECTOR CORPORATE PLANNING	2
TREASURER	2
VICE PRESIDENT FINANCE	2
DIRECTOR OPERATIONS ANALYSIS/RESEARCH	2
VICE PRESIDENT MARKETING	1
TOTAL	44

(1) MAY BE MORE THAN ONE PER COMPANY

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- .The corporate manager of financial analysis or financial planning is the most likely candidate to start with.
- However, the wide range of titles shown reflect the broad usage of FMPS.
- In Fortune 1000/100 companies, the comptroller or assistant controller will have the budgeting/planning function.
- In the larger Fortune 500/50 companies, staff financial or budget analysts under a Director of Corporate Planning might be key users of FMPS.
- In the government sector, look for business economists to be responsible for building and maintaining economic and financial planning systems.
- Younger Vice Presidents of Finance or corporate Treasurers, university trained in computer aided planning, are ideal candidates to use newer FMPS software which offers comprehensive planning capability using procedures which are easy for the executive to use.

## H. WHAT VENDOR HELP IS REQUIRED

- Respondents want help from vendors. In general they have found their data processing organizations non-responsive to their planning needs.
- Fortune 500/50 companies usually only need help getting started, and want responsive consulting when they have operational problems.
- Fortune 1000/100 companies still by and large lack the resources to assign specialists who can become acquainted with the fine points of using the FMPS system to best advantage. Besides education and training, respondents wanted vendors who could help define, and at times build models, to meet the user's immediate needs.

- Some respondents were looking for vendor developed models to meet specific financial management and planning requirements, models which either satisfy near term needs or which can be modified by the vendor on short notice.
- Respondent industry analysts at public utilities and business economists in governments all developed their own FMPS systems.
- The extent of vendor involvement in respondent FMPS development is shown in Exhibit IV-11. The low involvement (18%) of data processing in application development indicates that the user can be better served by specialized vendor services.
- Responents typical comments on vendor support in developing FMPS application packages are illustrated in Exhibit IV-12.
  - Comments reflect teamwork between vendor and user.
  - The importance of training is significant.

# I. WHAT MODELING/FORECASTING TECHNIQUES ARE MOST IMPORTANT

- Respondents were asked to separately assess on an equivalent scale of 100 (most important) to 1 (least important) modeling/forecasing techniques they consider important in FMPS software. Their assessment is shown in Exhibit IV-13.
  - Respondents express strong preference for basics such as "what if" and sensitivity analysis over more advanced techniques such as handling equations simultaneously or Box-Jenkins regression.
  - Again the emphasis is on techniques that are easy to understand and are easy to use.

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# **RESPONDENTS' METHODS OF FMPS APPLICATIONS DEVELOPMENT**

DEVELOPMENT METHOD	PROPORTION OF RESPONDENTS १
VENDOR ONLY	17%
VENDOR/USER	17
OUTSIDE CONSULTANT	6
DATA PROCESSING	6
DATA PROCESSING/USER	12
USER ONLY	42
TOTAL	100%

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#### RESPONDENTS' COMMENTS ON FMPS APPLICATION DEVELOPMENT



# RESPONDENTS' ASSESSMENT OF IMPORTANT MODELING/FORECASTING TECHNIQUES FOR FPMS SOFTWARE

TECHNIQUE	DEGREE OF IMPORTANCE (100)
"WHAT IF" ANALYSIS	82
FINANCIAL RATIO ANALYSIS	73
SENSITIVITY ANALYSIS	71
RETURN ON INVESTMENT (ROI)	65
TIME SERIES FORECASTING	65
LINEAR REGRESSION	61
MULTIPLE REGRESSION	56
RISK ANALYSIS	53
DISCOUNTED CASH FLOW	52
SIMULTANEOUS EQUATION HANDLING	49
SIGNIFICANCE TESTING	54
EQUATION REORDERING	44
ZERO BASE BUDGETING	43
BOX-JENKINS REGRESSION	39

- Respondents preferences may change over time as they become more familiar with more advanced modeling/forecasting techniques either through university (MBA) or vendor supplied education.

### J. RELATIONSHIP OF FMPS TO OTHER SOFTWARE SYSTEMS

- Respondents were vitally interested in being able to interface other software systems with the FMPS modeling system. They were much more interested in ease of use between subsystems than they were in sophisticated modeling capabilities.
- Respondents' use of other software subsystems interfaced with FMPS systems is shown in Exhibit IV-14. Over half (55%) currently interface (often with difficulty) with other software subsystems. Interfacing with DBMS (24%) and general ledger (21%) systems indicate the growing importance of providing financial software systems which emphasize "ease of use."

## K. USE OF EXTERNAL FINANCIAL AND ECONOMIC DATA BASES

- Respondents indicated availability of economic and financial data bases is a desirable but not necessary ingredient of vendor offerings (see Exhibit IV-15).
- Large Fortune 500/50 companies used financial and economic data bases in connection with their financial management and planning activities.
  - Banks, brokerage houses, and governments are heavy users of economic and financial data bases.
  - Large process and discrete manufacturers use securities data bases for merger and acquisition analysis.

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# RESPONDENTS' USE OF OTHER SOFTWARE SYSTEMS IN

# CONJUNCTION WITH FMPS SOFTWARE

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USE	OTHER SYSTEM	PROPORTION INTERFACING (१)	PROPORTION OF RESPONDENTS (%)
YES	<ul> <li>REPORT WRITER</li> <li>DBMS</li> <li>GENREAL LEDGER</li> <li>GRAPHICS</li> <li>STATISTICS</li> </ul>	27% 24 21 15 13	55% '
NO			45
TOTAL		100%	100%

# RESPONDENTS' USE OF EXTERNAL

# ECONOMIC AND FINANCIAL DATA BASES

USE	ТҮРЕ	PROPORTION USING (१)	PROPORTION OF RESPONDENTS (%)
YES	ECONOMIC FINÁNCIAL	78% 22	20%
NO			80
TOTAL		100웡	100%

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# L. FUTURE FMPS REQUIREMENTS

- Respondents generally felt that the current software packages satisfied their current and anticipated future requirements.
- Respondents were more interested in having FMPS software easier to use, as opposed to having more sophisticated modeling techniques.
- Fortune 1000/100 respondents generally felt that they lacked the internal capability to use FMPS software in a highly sophisticated manner. They are looking for near term solutions in the form of vendor developed applications packages.
- Respondents mentioned a wide diversity of unfilled requirements, the most important of which is easy to use combinations of FMPS software, DBMS, report writer, and graphics packages (Exhibit IV-16). Typical respondent comments are shown in Exhibit IV-17.

# RESPONDENTS' REQUIREMENTS NOT ADDRESSED BY CURRENTLY

# AVAILABLE FMPS SOFTWARE

REQUIREMENT	PROPORTION HAVING REQUIREMENT (%)	PROPORTION OF RESPONDENTS (%)
YES		35%
IMPROVED INTERFACES TO REPORT WRITER, DATA BASE MANAGEMENT OR GRAPHICS	23%	
WORKING CAPITAL MANAGEMENT	14	
"WHAT IF" ANALYSIS THAT GIVES MULTI- PLE ALTERNATIVES	14	
IMPROVED METHODS FOR BALANCE SHEET/ INCOME STATEMENT CONSTRUCTION	14	
BETTER GRAPHICS CAPABILITIES	7	
IMPROVED ASSET ANALYSIS	7	
LOAN PORTFOLIO ANALYSIS	7	
CAPABILITY OF HANDLING BUDGET AND PERFORMANCE IN SAME SYSTEM	7	
SALES FORECASTING PACKAGES	7	
NONE		65
TOTAL	100%	100%

#### **RESPONDENTS' COMMENTS ON FUTURE FMPS REQUIREMENTS**



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# V COMPETITIVE ENVIRONMENT

#### V COMPETITIVE ENVIRONMENT

#### A. COMPETITIVE STRUCTURE

- Two types of vendors currently exist in different segments of the marketplace. Today they do not directly compete with each other, but technology in the form of minicomputers is blurring market segmentation.
  - Software vendors market their financial management and planning products directly to end users (in-house). They offer consulting services in conjunction with system installation to assist the user in model building. Some software vendors offer their systems through remote computing vendors. In that sense, they are complementary, not competitive, with RCS vendors.
  - A few software vendors are offering financial management and planning packages implemented on minicomputers for in-house use as a turnkey system.
  - Processing services vendors market financial management and planning services on an RCS basis. They offer consulting services to assist the user in model building. They also use the model building software to develop financial planning application packages which they tailor to satisfy specific end user requirements.

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- Some RCS vendors have acquired financial planning software vendors so that they can offer to service the client either in-house or on an RCS basis.
  - United Computing Services has acquired Foresight Systems, Inc.
- A few RCS vendors offer on-site minicomputers for in-house use. End users can execute financial management and planning software on these systems.
  - ADP Network Services offers FML on its DEC 2020 on-site mini.
- INPUT believes that over time financial planning software vendors and RCS vendors offering financial planning services will evolve into financial management and planning systems vendors.

#### B. VENDOR PERCEPTIONS

#### I. MARKET GROWTH

- Vendors interviewed believed that the market for FMPS services is rapidly expanding. On the average, they feel that FMPS revenues will grow by 50% in 1979 and nearly triple in size by 1983.
- 2. LEADING COMPETITORS
- RCS vendors ranked GE, SBC, and ADP as the leading FMPS computer services vendors.
- Software product vendors ranked FORESIGHT and SIMPLAN as the leading software products.

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### 3. MARKET SECTORS

- Some vendors (30%) targeted their offerings primarily to Fortune 500/50 companies.
- Most vendors targeted their offerings to banks (80%), other finance (50%), and manufacturing (50%). Other target areas are shown in Exhibit V-1.
- 4. KEYS TO SUCCESSFUL MARKETING
- Vendors generally felt that the quality of marketing personnel and technical support were the key elements in successfully marketing FMPS services and software products (Exhibit V-2). Ease of use and industry requirements were also important.
- 5. PLANS OFFERING FMPS ON IN-HOUSE MINIS
- Some vendors (40%) reported that they were currently offering or planned to offer FMPS systems on minis; either as turnkey systems or as an on-site vendor supplied mini.
- 6. IMPORTANCE OF DBMS
- Most (60%) of the vendors interviewed felt it was or would soon become very important to interface a DBMS system with their FMPS offerings. Typical vendor comments are shown in Exhibit V-3.
- 7. IMPORTANCE OF EXTERNAL FINANCIAL AND ECONOMIC DATA BASES
- Only 30% of the vendors interviewed feel that it was very important to offer economic and financial data bases in conjunction with FMPS services.

# VENDOR SELECTION OF FMPS MARKET AREAS

MARKET AREAS	PROPORTION OF VENDORS TARGETING (%)	
FORTUNE 500/50	30%	
FORTUNE 1000	70	
BANKING	80	
FINANCE	50	
MANUFACTURING	50	
RETAIL	40	
TRANSPORTATION	40	
UTILITIES	30	
GOVERNMENT	20	
INSURANCE	20	

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# VENDORS' KEY ELEMENTS IN

### SUCCESSFUL MARKETING OF

## FMPS SERVICES AND SOFTWARE PRODUCTS

KEY ELEMENT	NUMBER OF TIMES MENTIONED	
CALIBER OF CONSULTANTS	5	
PRODUCT MEETS INDUSTRY NEED	4	
EASE OF SYSTEM USE	4 <sup></sup>	
QUALITY OF MARKETING PERSONNEL	4	
FLEXIBILITY	2	
USER GROUPS	2	
RANGE OF FUNCTIONS	1	
ABILITY TO INTERFACE WITH OTHER PRODUCTS	1	

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#### VENDORS' COMMENTS ON IMPORTANCE OF DBMS SYSTEMS

TO SELLING FMPS SERVICES AND SOFTWARE



### 8. IMPORTANCE OF PROFESSIONAL CONSULTING SERVICES

- Most (60%) of the vendors interviewed felt that professional consulting services were essential in selling FMPS services. Only 10% felt that offering consulting services was unimportant.
- 9. IMPORTANCE OF DATA COMMUNICATIONS NETWORKING
- Most (60%) of the vendors interviewed felt that providing a national (international) data communications network in conjunction with FMPS services was very important for U.S. (multi-national) corporations.

### C. VENDOR REVENUES FROM FMPS PRODUCTS AND SERVICES

- The 1978 market for financial management and planning products and services is \$185 million. The market is divided into three segments: (1) Financial Management and Planning RCS Services (\$140 million); (2) Software Products (\$30 million); and (3) Professional Services (\$15 million).
- The 1978 market for financial management and planning computer services of \$140 million is widely held among more than ten vendors. GEIS, SBC and ADP are the largest vendors, sharing nearly 60% of this market segment (Exhibit V-4).
- The market for financial management and planning software products of \$30 million is also shared among more than a dozen vendors. Foresight Systems and Social Systems, Inc., are the leading vendors. They hold on 20% of this market segment (Exhibit V-5).
- The professional services segment of \$15 million is equally shared among both the computer services and the software vendors. No attempt was made to allocate professional services revenues among vendors.

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# MARKET SHARE OF FINANCIAL MANAGEMENT AND PLANNING SERVICES VENDORS

### 1978

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SERVICES VENDORS	ESTIMATED REVENUES (\$M)	MARKET SHARE (%)	CUMULATIVE PORTION (%)	
GEIS	\$ 40	29%	29%	
SBC	25	18	47	
ADP	15	11	58	
DRI	12	9	67	
IDC	10	7	74	
NCSS	9	6	80	
RAPIDATA	6	4	84	
COMSHARE	3	2	86	
RCC	3	2	88	
ALL OTHERS	17	. 12	100	
TOTAL	\$140	100%	100%	

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### MARKET SHARE OF FINANCIAL MANAGEMENT AND

#### PLANNING SOFTWARE VENDORS

1978

SOFTWARE VENDOR	ESTIMATED 1978 REVENUE* (\$M)	MARKET SHARE (%)	CUMULATIVE PORTIONS (१)	
FORESIGHT SYSTEMS	\$ 4.5	168	16	
SOCIAL SYS- TEMS, INC.	4.0	13	29	
EXECUCOM SYSTEMS	2.5	8	37	
CAPEX	2.5	8	45	
CUFFS PLAN- ING, LTD.	2.0	7	52	
PLAN METRICS, INC.	2.0	7	、 59	
CORE & CODE	1.5	5	64	
ROSS SYSTEMS	1.0	3	67	
ALL OTHERS	10.0	33	100	
TOTAL	\$30.0	100%	100%	

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# D. FINANCIAL MANAGEMENT AND PLANNING SYSTEMS HARDWARE CAPABILITY

- Financial management and planning software systems (FMPS) are available on a wide variety of mainframes and an increasing number of minis. Implementation for the major products are shown in Exhibit V-6.
- The availability of FMPS on a wide variety of mainframe and/or minis follows from the fact that many of the software packages are coded in FORTRAN.
  - The software can be transferred (with some effort) to a mainframe or mini having an adequate FORTRAN compiler and sufficient main memory.
  - Interfacing FMPS packages with FORTRAN gives the financial analyst access to the usually extensive FORTRAN library of mathematical and .statistical functions and subroutines.

### E. KEY VENDOR PROFILES

#### I. RCS VENDORS

- a. ADP Network Services
- ADP offers two financial management and planning languages TSAM and FML. TSAM (Time Series Analysis and Modeling) is used for econometric and economic forecasting as well as for financial planning, whereas FML, a more recent release (1977), meets 85-90% of the market needs for corporate financial planning.

# EXHIBIT V-6 FINANCIAL MANAGEMENT AND PLANNING SYSTEMS HARDWARE CAPABILITY

SOFTWARE PRODUCT	RCS VENDOR	MAINFRAME	MINI	ESTIMATED NUMBER OF USERS 1
FML	ADP		DEC 20	600
SIMPLAN	AVCO INFORMATICS	IBM 370		200
EIS	BCS	IBM 370		200
CUFFS	CALLDATA	DEC 10		120
EMPIRE	COMPUTER SHARING INC. DATA RESOURCES, INC.	B 7700		80
FCS	COMSHARE	HONEYWELL SIGMA 9		350
BBL	TYMSHARE	IBM 370 DEC 10		300
IFPS	CDC	CYBER IBM 370 B 7700 H6000	PRIME 400 DEC 20	350
FAL II	GEIS	H6000		1,000
XSIM	IDC	IBM 370 AMDAHL		500
FORESIGHT	MELLIONICS UCS	IBM 370 CYBER		800
DATA-MODEL	MINI- COMPUTER MODELING, INC.		DATA POINT 1100 PDP 11 DEC VAX	85
FISCAL	RAPDIATA	DEC 10		300
MAPS	ROSS SYSTEMS		PDP 11 DEC 20	60
PROPHIT II	SBC	IBM 370		2,500

1 VENDOR ESTIMATES

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- In addition to RCS, ADP is offering FMPS services on their On-site DEC 2020 mini. The FML system leases for \$750/month for On-site use.
- ADP is concentrating effort in the financial community. They have integrated several software products and built application modules to create the FINALYST system. FINALYST is an integrated system of analytical and reporting routines combined with a family of data bases, designed specifically for the financial community.
- Another FMPS product oriented toward the financial community is called BANCALL.
  - BANCALL combines inquiry, analysis, report writing, and graphic routines with FDIC and Chase Econometrics models and data bases to enable bank analysts to do both micro and macro-economic planning.
  - The system is currently in use by 40 out of the top 50 commercial banks.
- With 1978 FMPS revenues of \$15 million, ADP is the third largest computer services vendor.

### b. General Electric Information Services (GEIS)

- GEIS with 1978 FMPS revenues of \$40 million is the current leader in offering financial management and planning remote computing services. GEIS has specialized in the manufacturing (process and discrete) sector as well as in the financial sector.
- Using FORTRAN as a base, they have created a financial analysis language (FAL II), a Market Analysis and Projection (MAP) program, a graphic language (PLOT II), and a statistical system (STAT SYSTEM). Each system interfaces with the other and with FORTRAN.

- Having an international timesharing network has been a big advantage to GEIS in working with FORTUNE 500 multinational companies. The network is heavily used for both financial reporting (consolidations) and for financial management (cash management).
- Recently, GEIS has been giving more attention to providing economic and financial data bases in more direct competition with Data Resources, Inc. (DRI).
- GEIS can be expected to revise and improve its FMPS product line to expand its market share. A major improvement will be the integration of a data base management system which will allow FAL II to interact both to external economic and financial data bases, and to internal corporate data.

### F. SERVICE BUREAU COMPANY (SBC)

- SBC has developed a comprehensive set of financial management and planning software as part of their "Business Information Services for Planning, Analysis, and Control (BISPAC)."
  - SBCs' approach is to offer the software fully supported by consulting services to help the user define and program the desired applications.
  - In this sense, SBC provides more customer support (for a fee) than many of the other RCS vendors.
  - SBC's approach has been notably successful in FORTUNE 1000 companies.
- SBC developed and enhanced PROPHIT II as the FMPS system for their RCS network.

- .The system has several levels of sophistication such that initial applications can easily be developed for new users.
- The model can later be enhanced without redoing the initial design.
- SBC also has a number of compatible subsystems that extend and enhance PROPHIT II. These include: (1) DATA PAC for statistical analysis; (2) RISKAN II for risk analysis; (3) TIME PACK II for time series analysis and forecasting; (4) MMX for data management; and (5) PICTURE PAC for graphics.
- SBC has taken the industry application package route to extend this market share. Using the modeling tools, SBC has created industry specific FMPS application packages such as MUFU, a financial planning package for independent insurance agencies, and BID a financial analysis package for brokerage houses.
- With 1978 FMPS revenues of \$25 million, SBC is the second leading computer services vendor.

d. Data Resources, Inc. (DRI)

- Until recently, DRI has concentrated marketing its financial management and planning services to FORTUNE 500/50 companies. Over half of the FORTUNE 500 and 50 of the top financial institutions use DRI services.
- DRI has made access to a wide variety of economic and financial data bases economic and attractive to financial planners. This has tended to make DRI relatively immune to users shifting to in-house systems, whether through timesharing or minicomputers.
- DRI's initial offering, Econometric Programming System (EPS), is a comprehensive software system oriented toward economic and financial analysts.

- The language enabled econometric and economic analyses to be conducted on a detailed level.
- DRI either helped clients develop the model, or developed the model for the client.
- DRI recently introduced EMPIRE, an integrated modeling, analysis, and reporting system oriented toward the business planner or manager.
  - The system is oriented toward ease of use. Many of its functions are implicit or built in.
  - With EMPIRE users can produce the full range of corporate financial reports such as balance sheets, income statements, cash requirements, and fund flow statements.
- Financial Analysis System (FAS) is a DRI system oriented toward the financial community. FAS allows analysts to evaluate financial data contained in VALUELINE, COMPUSTAT, and user determined data bases.
- DRI is expanding its market coverage by offering FMPS packages to meet specific needs.
  - The Replacement Value Accounting System enables corporate financial planners to comply with SEC annual reporting requirements.
  - The DRI Foreign Exchange System allows corporate financial offices to forecast the effects of variable foreign exchange rates on company profits, cash position, and fund flows.

### e. Interactive Data Corporation (IDC)

- IDC specializes in providing economic and financial data bases in conjunction with FMPS services.
  - IDC initially concentrated marketing effort in the financial sector and to the top of the FORTUNE 500 companies.
  - Their services were oriented toward business economists and financial analysts.
  - IDC has within the past two years expanded their market coverage to FORTUNE 1000 companies and to business planners within those companies.
- By continuing emphasis on offering economic and financial data bases with FMPS services, IDC revenues remain relatively immune to any shift to inhouse timesharing or in-house minis.
- IDC has developed an integrated line of IBM compatible modeling and analysis software.
  - Users can access and shift between subsystems at will.
  - The IDC modeling language is XSIM, the data management language XDMS.
- IDC has developed specialized industry applicational software for the financial community. XPORT is offered for portfolio management and XSCAN is a system used by security analysts for investment analysis and money market instrument forecasting.

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### f. National CSS (NCSS)

- NCSS has been successful in offering FMPS products developed by software vendors on an exclusive RCS basis.
- Economic Modeling System (EMS) developed by Economic Sciences Corporation is a modeling and forecasting system for use by economic and financial analysts. The system is excellent for time series analysis, and analyzing such things as company vs industry performance.
- NCSS offers INFOTAB developed by CADEX Corporation for use by business planners.
  - The system can be used for financial planning, reporting and forecasting.
  - The system is table driven. Most functions are imbedded in the system and require only user supplied parameters.
- Rapid Access Management Information System (RAMIS) developed by Mathematica, Inc. is a data base oriented system offered by NCSS to business planners who need to analyze and project large quantities of company reported data. A typical use of RAMIS by a business planner would be sales reporting and forecasting.
- With the introduction of the NCSS 3200, NCSS is offering the full range of its financial planning services to its clients on an on-site IBM compatible minicomputer. The client can still gain access to economic and financial data bases and consolidate company financial data through the NCSS data communications network.

#### g. Rapidata

- Rapidata's initial FMPS offering PROBE was oriented toward financial analysts and business economists in FORTUNE 500/50 companies. Rapidata assisted analysts in building detailed economic and financial models. PROBE provides for forecasting and analysis, data management, graphics, and report preparation.
- Using PROBE as a base, Rapidata developed FISCAL for ease of use by business planners and financial executives of FORTUNE 1000/100 companies.
  - FISCAL is highly interactive, and prompts the user as he creates the required model, reports, etc.
  - FISCAL contains many implicit, or built-in functions which assist the user in forecasting and in creating an integrated set of financial reports.

#### h. Comshare

- Comshare has specialized in offering a variety of financial and management software systems on a RCS basis. Two products under PARSEC Services are oriented for use by financial planners.
- Financial and Corporate Planning System (FCS) is a completely interactive system that combines over 90 commonly used business functions in an easy to use line by line model building system. The system contains a hierarchical data base capability to aid consolidation, and more than 60 report writing functions.
- VISCOM 190 is an asset valuation system which is integrated with a forecasted inflation rate economic data base. The system allows corporate planners to forecast replacement valuation, and to report properly to SEC under ASR 190.

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### i. <u>Remote Computing Corporation (RCC)</u>

- RCC has taken the industry specific route in offering FMPS services. RCS has developed a set of planning tools oriented toward the savings and loan (S & L) industry.
- The Savings and Loan Financial Planning System (SLP) forecasts funds flow, operating expenses, and revenues based on specified levels of savings and borrowing. It is used by over 500 S & L's.
- RCC also offers a Mutual Savings Bank Financial Planning System (MLP) and a Liquidity Management System oriented toward analyses and evaluation of alternative S & L (MSB) portfolio holdings.
- 2. SOFTWARE VENDORS
  - a. Foresight Systems, Inc.
- Foresight Systems, Inc., a subsidiary of United Computing Services (UCS), markets Foresight software to end users and on UCS and Mellonics timesharing networks.
- The system was developed in FORTRAN and is, therefore, available on a wide variety of host processors.
- An active users group helps with suggestions for improvements and provides references to prospective clients.
- The system sells for \$35,000.
- FORETAX was developed using FORESIGHT.
  - The system allows the corporate planner to do both Federal and State tax compliance and to do future tax planning.



- The system is particularly useful in analyzing the tax consequences of proposed mergers or acquisitions.
- b. Social Systems, Inc. (SSI)
- SSI, a privately held company, markets SIMPLAN directly to end users and on a timesharing basis through AVCO and Informatics.
- The development effort is supported by an active users group.
- The system has been implemented in PL/I for the IBM 370.
- The system sells for \$37,500.
- Approximately 15% of SSI's revenues are derived from professional consulting services.
  - c. Execucom Systems Corporation
- Execucom markets the Interactive Financial Planning System (IFPS) to end users and on a timesharing basis through Control Data Corporation (CDC).
- The system was developed in FORTRAN and is available on a wide variety of mainframes and the PRIME 400 minicomputer.
- The system sells for \$42,000. Maintenance after the first year is \$200/month.
- Execucom has established "The Planners League" to foster the practice of corporate planning among its users.
- Execucom has recently announced the formation of a planning laboratory at its corporate offices. Data, visual and audio support systems will allow realtime simulation of the planning process. Corporate planners will be able to see the results of alternative planning strategies projected into future time slots.

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### d. <u>Cuffs Planning and Models Ltd.</u>

- The Combs Unangst Financial Forecast System (CUFFS-II) is marketed to end users and on a timesharing basis through Compuserv and CallData.
- The system is currently available for sale at \$32,000, operating on the DEC 10/20 and the IBM 370.
- The system contains over 700 built-in general financial routines, 200 language commands, automatically reorders equations for optimum calculation, and executes simultaneous equations.

### e. Ross Systems, Inc.

- Ross Systems markets Management Aid for Planning Strategies (MADS) for the DEC PDP11 and DEC 20 minicomputers.
- The system has been in use for over three years in some 60 installations including two very large banks.
- MAPS sells for \$15,000 and operates on an interactive basis with the business planner.
  - f. Minicomputer Modeling, Inc.
- The Data Model System is a turnkey financial management and planning system that operates on Datapoint and DEC minicomputers.
- The system has been operational for two years in some 85 installations.
- Data Model sells for \$12,000 for the first mini and \$3,000 for each additional mini in the company.

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# VI PRODUCT AND MARKETING ISSUES

### VI PRODUCT AND MARKETING ISSUES

### A. IMPACT OF TECHNOLOGY ON FMPS

- Financial models approximate reality. In simulating the "real" financial world, FMPS models tend to use large amounts of memory and significant amounts of computer time.
  - A relatively short time ago (5-8 years) only the very largest Fortune 500/50 companies had large enough computers and could afford to do a significant amount of computer aided financial planning.
  - Expertise in the art of model building and in economic and financial planning were in extremely short supply. As market demand grew, it was natural for these experts to form specialty software houses and to create specialized offerings from RCS vendors. Indeed the interactive nature of the model building and using process is one of its most attractive features for people "simulating" reality.
- The rapid decline in the cost of semi conductor logic and memory has significantly lowered both the processing costs and the size of computer (mini) which can successfully execute FMPS software.
  - It has now become both feasible and economic to develop and execute financial planning models on minicomputers. It has even become

feasible to accumulate large amounts of company data using DBMS on minicomputers.

- The moderate decline in the cost of disk data storage coupled with the need to retain large quantities of company data has accelerated the development of comprehensive data base management systems (DBMS). As companies shift to DBMS as the primary Management Information System (MIS), financial business planners require access to company data for planning and financial forecasting through DBMS.
- The labor intensive cost for developing and maintaining large amounts of external micro and macro economic and financial data still favors RCS vendors.
- The cost of data communications has not yet fallen commensurate with micro-electronic costs. This tilts the cost equation even more heavily toward the use of in-house minicomputers for interactive financial management and planning.

### B. PRODUCT STRATEGIES FOR TECHNOLOGY ISSUES

### I. MINICOMPUTER USE OF FMPS

- Software vendors would do well to streamline and adapt current FMPS packages to existing minicomputers. This is especially true for the "megamini." The conversion should be very attractive for minicomputers which are IBM plug compatible.
- Software vendors would do well to develop both new FMPS software and specialized financial applications packages for selected minicomputers and offer the system to financial and business planners on a turnkey basis.

#### 2. ON-SITE USE OF FMPS

• To protect and expand existing market RCS vendors need to offer FMPS software on RCS vendor supplied minis which are vendor installed and supported at the user site. The on-site mini can be used either in a standalone mode or go on-line to the vendor's RCS network for financial data transfer, for financial reporting consolidation, or for accessing external financial and economic data bases.

#### 3. DATA BASE USE OF FMPS

• Both RCS and software products vendors need to approach development of financial management and planning systems with access to DBMS integrated into the high order language structure. Access through systems that are interfaced should be through calls generated from statements the planner creates in the high order language.

### C. PRODUCT STRATEGIES FOR FMPS

#### I. DESIRED ATTRIBUTES OF CURRENT FMPS OFFERINGS

- "Ease of use" is the top attribute vendors should strive for in designing financial modeling systems. The financial executive himself should be able, with adequate instruction, to either build his own model or use vendor provided options.
- The system should be highly interactive. Prompting messages should guide the user through model development and execution.
- The system should have many built in vendor provided functions which are default options if the business planner does not specify alternatives.

- The system should provide easy to use interfaces between the basic modeling language and:
  - Graphics systems.
  - Report writing systems.
  - Statistical systems.
  - Data base management systems.
  - External financial and economic data bases.
- The system should provide a wide variety of standard financial planning functions, which the business planner can use in model development. Examples of such functions are:
  - Discounted cash flow.
  - Financial ratio analysis.
  - Straight line and double declining balance depreciation.
  - Lease/buy analysis.
  - Return on Investment (ROI) analysis.
  - Present value.
  - Compound interest.
  - Consolidation.
  - Spread sheets.

- The system should provide a comprehensive set of statistical routines for estimating variable interrelationships and for including risk in the user developed model. Examples of such sub routines are:
  - Linear regression.
  - Multiple regression.
  - Means and variances.
  - Moving averages.
  - Auto correlation.
  - Curve fitting.
  - Exponential smoothing.
  - Box-Jenkins.
  - Monte Carlo simulation.
  - Sensitivity analysis.
  - Risk analysis.
- The language should provide the capability of defining "What If" analyses so that planners can evaluate financial alternatives.
- The language should provide for goal seeking so that planners can determine the consequence of specific financial decisions.
- The system should provide for automated equation reordering such that variables are evaluated in both correct and optimum order.

- The system should be able to simultaneously execute specified equations.
- The system should provide for automated variable significance testing.
- The system should provide for time series analysis so that users can analyze large volumes of data either user supplied or from external financial data bases.
- The system must be well documented.
- The system should provide good audit trails.
- The system should have excellent security features such that neither unauthorized company personnel nor competition can gain access to sensitive corporate data.
- 2. DESIRED IMPROVEMENTS FOR FUTURE FMPS OFFERINGS
- Integration is key for future FMPS offerings.
  - Providing interfaces such that the business planner can transfer from the modeling language to the graphic package or to a report writer will no longer be acceptable.
  - Financial planners are looking for one system which will do everything in the high order modeling language.
- Business planners have discovered the value of easily shifting between financial control and financial planning data systems.
  - Planners are becoming better educated and experienced in using quantitative estimation techniques.

- Better access to quantitive company economic data is made through the general ledger (G/L) and to external economic data through data base management systems (DBMS).
- Initial FMPS offerings had fixed financial models which were easy for the business planner to use but were very inflexible to change.
  - The pendulum has swung to high order language (HOL) FMPS systems which are extremely flexible but which often require a high level of sophistication on the planners part in making effective use of the system.
  - These systems are highly effective with planners in Fortune 500 companies. Planners in Fortune 1000 and below companies want less sophistication and flexibility and more done for them.
  - Vendors can provide fixed FMPS models built using the HOL that can easily be modified to handle specific company requirements.
- Vendors can use HOL FMPS software to develop future systems that meet specific financial management requirements (such as inflation valuation) or financial application packages tailored to the needs of specific industries (such as utility company capital planning).

### D. MARKETING STRATEGIES FOR FMPS

### I. MARKETING STRATEGIES FOR COMPUTER SERVICES VENDORS

• Remote computer services vendors need to target their marketing efforts to specific market sectors. For example, they need to become expert in the industry particular financial planning requirements of, for example, retailers, or petrochemical companies.

- RCS vendors need to offer multi-national Fortune 500/50 companies ways of effectively utilizing an international network for financial data reporting, for country industrial forecasts and for consolidation.
- RCS vendors need to offer Fortune 500/50 companies the ability to do coordinated financial planning on a divisional basis and corporate consolidation using a national RCS network.
- RCS vendors should look for effective software products developed by financial experts to meet particular financial planning requirements. Vendors should offer the software product on an exclusive RCS (vs. in-house) basis using the services of the developers as consultants.
- A responsive financial consulting group in marketing is a must for successful selling of FMPS services.
- RCS vendors can counter the trend toward shifting FMPS in-house by offering the planner systems which operate on an on-site minicomputer.
- RCS vendors can offer the financial planner the ability to effectively access and do time series analyses on external financial and economic data bases.

#### 2. MARKETING STRATEGIES FOR SOFTWARE PRODUCTS VENDORS

- Software products vendors need to offer financial planning seminars to highlight to chief financial officers how effective FMPS can be for his organization. Every attempt should be made to involve top financial executives in the computer-aided financial planning process itself.
- Software product vendors should utilize financial experts (for example, urban land economists) to help develop financial planning models for forecasting in specific market areas.

- Formation and support of users' groups is a good means of spreading the word on the effectiveness of FMPS software product offerings.
- The key to successful sales and installation of in-house FMPS software is the quality and responsiveness of consulting personnel.
- Licensing FMPS products to an RCS vendor is frequently a method of gaining additional clients and income.
- 3. MARKETING TO SMALLER COMPANIES
- Companies at the lower end of the Fortune 1000/100 and below have different FMPS requirements than the top Fortune 500/50 companies. Financial and business planners are spread thin in smaller companies. Analysts cannot be specially assigned to develop and support financial planning models as they are in the larger companies.
- Using their FMPS model building software, computer services and software products vendors must develop either specialized applications or complete models for financial planners in smaller companies. Vendors must be prepared to change or tailor the model on short notice to meet specific end user requirements.
- RCS vendors can offer smaller Fortune 1000 companies FMPS services on onsite minicomputers which can be either on or off-line to the vendors RCS network.
- Software product vendors can offer FMPS systems to smaller Fortune 1000 companies on a turnkey basis using minis.


## APPENDIX A: INTERVIEW PROFILE FOR FINANCIAL MANAGEMENT AND PLANNING SERVICES AND SOFTWARE MARKETS

# APPENDIX A

# INTERVIEW PROFILE FOR FINANCIAL MANAGEMENT AND PLANNING SERVICES AND SOFTWARE MARKETS

INTERVIEW PROFILE	TOTAL
• VENDORS	
<ul> <li>RCS VENDORS</li> <li>SOFTWARE PRODUCT VENDORS</li> </ul>	6 4
• USERS	
- MANUFACTURING	
<ul><li>PROCESS</li><li>DISCRETE</li></ul>	7 8
- FINANCIAL	
<ul> <li>BANKS</li> <li>CPA's</li> <li>BROKERAGE</li> <li>INSURANCE</li> </ul>	6 1 3 2
- DISTRIBUTION	
<ul><li>RETAIL</li><li>WHOLESALE</li></ul>	3 2
- UTILITIES - GOVERNMENTS	5 3
TOTAL INTERVIEWS	50

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# APPENDIX B: DEFINITIONS

## APPENDIX B: DEFINITIONS

## • COMPUTER SERVICES

These are services provided by vendors which perform data processing functions using vendor computers, or assist users to perform such functions on their own computers.

• The following are definitions of the modes of service used in this report.

## • REMOTE COMPUTING SERVICES (RCS)

Provision of data processing to a user by means of terminals at the user's site/s connected by a data communications network to the vendor's central computer. The three sub-modes of RCS are:

- 1. <u>INTERACTIVE</u> (timesharing) is characterized by interaction of the user with the system, primarily for problem solving timesharing, but also for data entry and transaction processing; the user is "on-line" to the program/files.
- 2. <u>REMOTE BATCH</u> is where the user hands over control of a job to the vendor's computer which schedules job execution according to priorities and resource requirements.

3. <u>DATA BASE</u> is characterized by the retrieval of information from a vendor-maintained data base. This may be owned by the vendor or a third party.

#### BATCH SERVICES

This includes data processing performed at vendors' sites of user programs and/or data which are physically transported (as opposed to electronically by telecommunications media) to and/or from those sites. Data entry and data output services, such as keypunching and COM processing, are also included. Batch services include those expenditures by users which take their data to a vendor site which has a terminal connected to a remote computer used for the actual processing.

#### • FACILITIES MANAGEMENT (FM)

• (Also referred to as "Resource Management" of "Systems Management.") The management of all or part of a user's data processing functions under a long-term contract (not less than one year). To qualify as FM, the contractor must directly plan and control as well as operate the facility provided to the user on-site, through communications lines, or mixed mode. Simply providing resources, even though under a long-term contract and/or for all of a users' processing needs, does not necessarily qualify as FM.

#### • PROFESSIONAL SERVICES

Management consulting related to EDP, systems consulting, systems design and programming, and other professional services are included in this category. Services can be provided on a basis of: "Time and Materials," whereby the user pays for the time used of an individual on a daily or other fixed rate, or "Fixed Price," where the user pays a fixed fee for a specific task or series of tasks.

## • SOFTWARE PRODUCTS

This category is for users' purchases of systems and applications packages for use on in-house computer systems. The figures quoted include lease and purchase expenditures, as well as fees for work performed by the vendor to implement and maintain the package at the users' sites. Fees for work performed by organizations other than the package vendor are counted in professional services. The two sub-categories are:

- 1. <u>SYSTEMS PACKAGES</u> are operating systems, utilities, and language routines that enable the computer/communications system to perform basic functions. This software is provided by the mainframe manufacturers with their hardware; other vendors provide improved versions of this and special-purpose routines. This classification includes compilers, data base management software, communications packages, simulators, performance measurement software, diagnostic software, and sorts.
- 2. <u>APPLICATIONS PACKAGES</u> are software which perform processing to serve user functions. They consist of general purpose packages, such as for accounting and inventory control, and special purpose packages, such as personal trust, airline scheduling, and demand deposit accounting.

#### PROCESSING SERVICES

Processing services encompass FM, RCS, and batch services: they are categorized by type of service, as distinguished from mode of service, bought by users as follows:

- <u>GENERAL BUSINESS</u> services are processing services for applications which are common to users across industry categories. Software is provided by the vendor; this can be a complete package, such as a payroll package, or an application "tool," such as a budgeting model,

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where a user provides much of the customizing of the finished product it uses. General business processing is often repetitive and transaction oriented.

- <u>SCIENTIFIC AND ENGINEERING</u> services are the processing of scientific and engineering problems for users across industries. The problems usually involve the solution of mathematical equations. Processing is generally problem solving and is non-repetitive, except in the sense that the same packages or "tools" are used to address different, but similar, problems.
- <u>INDUSTRY SPECIALTY</u> services provide processing for particular functions or problems unique to an industry or industry group. The software is provided by the vendor either as a complete package or as an application "tool" which the user employs to produce its unique solution. Specialty applications can be either business or scientific in orientation; data base services where the vendor supplies the data base and controls access to it (although it may be owned by a third party) are also included under this category. Examples of industry specialty applications are: seismic data processing, numerically-controlled machine tool software development, and demand deposit accounting.
- <u>UTILITY</u> services are those where the vendor provides access to a computer and/or communications network with basic software that enables any user to develop its own problem solution or processing system. These basic tools include terminal handling software, sorts, language compilers, data base management systems, information retrieval software, scientific library routines, and other systems software.

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APPENDIX C: RELATED INPUT REPORTS

APPENDIX C

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### RELATED INPUT REPORTS

TITLE	INDUSTRY REPORT NUMBER	PUBLICATION DATE、
RCS MARKETS FOR ECONOMIC DATA BASES	5	JANUARY 1977
DATA BASE MANAGEMENT SYSTEMS SOFTWARE MARKETS	8	MAY 1978
COMPUTER SERVICES INDUSTRY ANNUAL REPORT 1978		OCTOBER 1978
USER SITE HARDWARE FROM COMPUTER SERVICES VENDORS: A NEW ALTERNATIVE FOR EDP MANAGERS	VENDOR WATCH REPORT 5	JANUARY 1979

# CONTACT: MICHAEL P. BURWEN, VICE PRESIDENT MARKETING (415) 493-1600 →

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APPENDIX D: SURVEY QUESTIONNAIRES

#### USER QUESTIONNAIRE

Financial Management and Planning Services and System Markets

1.	What in	your mind constitutes a Financial Planning Information System?
		Financial reporting
	_	Capable planning and modeling language
		Ability to forecast in future
		Ability to reorder logic statements
		Ability to solve simultaneous equations
		Detection of propogation errors
		Other .

Remarks:

2. Do you currently use Financial Planning Information Systems?

No (go to question 20)

Are the financial planning systems you use: 3.

□ In-house □ Timesharing services

D Both

Please identify: 4.

PRODUCT NAME	VENDOR	COST	DATE OF FIRST USE	MODE OF I	DELIVERY RCS

5. Please estimate your current EDP expenditures for financial planning.

.

RCS Expenditures (\$)	Monthly	🗌 Annual
🗌 Software Packages (\$)	Monthly	🗋 Annual
Professional Services	□ Monthly	🗆 Annual
Identify Types		

6. Do you see the level of expenditures changing over the next 3-5 years?

🗆 No	Increase			
5%	10%	25%	50%	□ >50%
Why?				

7. Are you making any plans to change your current method of operation in the near future?

🗋 No	□ Shift in-house	Shift	to RCS vendor
	□ A11		_ A11
	%		%

8. Are you considering shifting financial planning software processing to an in-house mini-computer?

□ No	Yes
	Hardware mini/vendor
	Software Product
	When?

- 9. What financial functions do you accomplish using Financial Planning computer software?
  - □ Long range planning

.

- □ Capital budgeting
- Operating budgeting
- Investment analysis
- □ Cash management
- □ Cash requirements forecasting
- □ Source and use of funds
- Market planning
- □ Sales forecasting
- Facilities planning
- Merger/Acquisition analysis
- □ Lease/Buy
- Consolidations
- Pro forma
- Foreign exchange
- □ Other

10.	How	do you go about choosing a financial planning system/service?
		Use sample problem for performance comparisons
		Formal vendor proposals
		Informal vendor proposals
		Vendor demonstrations
		Talking to other users
		Remarks:

11. Who makes the "big" decision in the company?

12. Why did you select the software system/vendor you are currently using?

13. What other financial planning software products/services did you consider at the time?

VENDOR	PRODUCT/SERVICE	REASONS FOR NON-SELECTION

14. What are the most important factors in selecting a financial planning computer system/service?

(Rank on a scale from 5 = most important, 1 = least important each factor separately)

$\Box$	Processing cost	
	Purchase Price	
	Networking Capability	
	Forecasting Techniques	
	Reporting capabilities	
	Data base interface	
	Available financial data bases	
	Local support	
	Graphics capabilities	
	Consulting	
	Training	
	Users group	
	Documentation	
	Other	

15. What modeling/forecasting techniques are most important? (Rank on a scale from 5 = Important, 1 = Unimportant each technique)

Return on investment analysis	
Discounted cash flow	
Risk analysis	
Simultaneous equations	
Time series forecasting	
Linear regression	
Financial ratio analysis	
Sensitivity analysis	
Significance testing	
Equation reordering	
Multiple regression	
Box-Jenkins	
Zero base budgeting	
What If analysis	
Other	

16. Who developed the specific application package you are using?

	🗌 Vendor	Data Processing	🔲 User	
Remarks:				

17. Do you use other software systems in conjunction with your Financial Planning activities?

TYPE	NAME
DBMS	
DStatistics	
Graphics	<u> </u>
Report writer	
General Ledger	
Other	

18. Do you make use of external data bases?

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🗋 No		
🗋 Types	Economic	Securities
🗆 Name		

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19. Do you have any financial planning requirements that are not addressed by currently available Financial Planning Systems?

🗋 None	
Requirement	Application

Are you planning to use Financial Planning Computer Systems in 20. the near future?

> □ No (go to question 21) 🗋 Yes

What systems/services are you considering?

In-house RCS Vendor

NAME	VENDOR	COST

Applicational Areas



21. Are there any users of Financial Planning Software systems in other areas of your company?

🗌 No

.

Name

Location

Telephone/Extension

## VENDOR QUESTIONNAIRE

Financial Management and Planning Services and Software Markets

1. What Financial Planning Information Systems/Services do you currently offer?

NAME	YEAR INTRODUCED	LATEST REVISION/ ADDITION	NUMBER OF INSTALLATIONS (not users)

2.	What are the charges for its license/installation?
	Software Vendor \$ /
	RCS Vendor \$
3.	What were your 1977 revenues for Financial Planning Services?
	Software Products
	RCS Revenues
	Professional Services
4.	What increase (%) do you expect for:
	1978 1980 1983
5.	Can you estimate your share of the Financial Planning Services market?
	Software%
	RCS%
	Professional Services%

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6. Who are your top three competitors in your segment of the marketplace?

VENDOR	MARKET SHARE (%)

7. What size companies do you target your services for?

	Fortune 500/50	Fortune	1000/100	Other
Banks	assets		Insurance	sales
			Manufacturing	gsales
Retail	revenues		Transportatio	on sales
Servic	es		Distribution	sales
	revenues		Finance	sales
Other	revenues		Other	sales

8. What is your latest offering in financial planning information systems?

9. What do you feel are the key elements in successfully marketing your financial planning information systems?

- 10. Do you have any plans to offer financial planning information systems for in-house minicomputers?
  - No No

Remarks:

11. What are the main reasons why users would buy your financial planning product/service?

To what extent is it necessary to interconnect DBMS systems to 12. your financial planning system offerings?

How important is it to offer financial and economic Data Bases in 13. conjunction with Financial Planning computer services?

Unimportant

Moderately important Very important

ECONOMIC	FINANCIAL
	ECONOMIC

How important is it to offer professional consulting services in conjunction with Financial Planning Computer Services? Unimportant Moderately Important Very Important Remarks: How important is to offer networking in conjunction with Financial 15. Planning Services? 1 1 U.S. only Moderately Important Very Important Unimportant International □ Fortune 1000/100 Fortune 500/50 Very Important Moderately Important Unimportant 1 1

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