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U.S. Applications Solutions Vendors Will Need to Deliver a More Integrated Product/Services Offering Over the Next Several Years to Remain Competitive

INPUT has recently completed its annual survey of the U.S. Applications Solutions Market, which combines the application software products and turnkey systems delivery submodes.

As indicated in a previous Research Bulletin, results for individual vendors within these groups in the 1992-1993 time frame were decidedly skewed. For many applications software products vendors, growth rates in both revenues and earnings slowed considerably, reflecting: the impact of slower growth in both domestic and international economies, sharp price declines from increased sources of competition and confusion about the newer client/server Information Systems paradigm. A few vendors did very well. These tended to be companies who developed lower-priced client/server applications as initial product offerings; larger companies in personal computer applications that are benefiting from their installed customer base with new product releases; and companies in vertical markets who adjusted quickly to changing user requirements.

Market Size

The total applications solutions market in 1992 was $33.9 billion, which reflected a 12% annual growth rate. The applications software product portion of this market in 1992 was $21.6 billion, reflecting a 14% annual growth rate; and turnkey systems, a $12.3 billion market in 1992, grew at an annual rate of 8%.

INPUT's five-year CAGR forecast for the applications solutions market remains at 12%, as it was in the 1992 report. However, the five-year CAGR for applications software products has been raised slightly to 15%. Factors positively impacting the applications software products market include: the initial impact of a new product sales cycle associated with the initial major rollouts of client/server products; an improving worldwide economy; and user indications (based on INPUT surveys) of greater use of third-party software vendors, by corporate IS and end-user departments, over the next several years.

Application Directions

INPUT's recent studies of corporate users' new application development programs involved surveys of companies in both vertical and cross-industry markets. These studies were further segmented by principal delivery modes and by client/server architectures that cut across delivery modes. Among the respondents, the highest percentage of new applications solutions involving either internally or externally produced application software solutions were in the discrete manufacturing, banking/finance, utilities, process manufacturing, and telecommunications market segments.

Market Opportunity

Optimal vertical (industry-specific) and cross-industry markets for application solutions vendors are those which combine the attributes of largest size and fastest growth. These are highlighted in Exhibit 1 (Applications Software Products Market, Industry-Specific Software) and Exhibit 2 (Applications Software Products Market, Cross-Industry Software).

Exhibit 1

Applications Software Products Market
Industry-Specific Software

Largest, 1992	$ Millions	Fastest Growing	Forecasted '93-'98 CAGR (Percent)
Discrete Manufacturing	2,300	Discrete Manufacturing	22
Banking/Finance	2,100	Telecommunications	20
Health Services	1,100	Business Services	19
Business Services	1,000	Process Manufacturing	17
Insurance	900	Insurance	15
		Health Services	15

Source: INPUT

Exhibit 2

Applications Software Products Market
Cross-Industry Software

Largest, 1992	$ Millions	Fastest Growing	Forecasted '93-'98 CAGR (Percent)
Office Systems	2,700	Planning/Analysis	18
Accounting	2,450	Accounting	14
Planning/Analysis	1,900	Human Resources	14
		Engineering and Scientific	12

Source: INPUT

In the Industry-Specific markets, the optimal combinations of size and growth occur in the discrete manufacturing, business services, health services, and insurance industries. In addition, above average growth exists in the telecommunications and process manufacturing markets.

In the cross-industry markets, the optimal opportunity occurs in the planning/analysis and accounting markets. The human resources applications software products market also provides good growth opportunity.

The turnkey systems market is moving towards an unbundled software product (customized or standard), delivery mode structure. Much of the impetus for this shift is a response to the demand shift to open systems hardware platforms, and a recognition of the fact that hardware revenue growth for turnkey systems has slowed significantly from the era when proprietary hardware represented much of the value of the application solution. The fastest growing turnkey systems vendors in the future will be those that provide software solutions which run on a number of hardware platforms, can provide a broad range of professional services and also have in-depth knowledge of specific vertical markets.

Technology

INPUT believes there are three significant technology forces which could reshape the structure of applications solutions delivery throughout the rest of this decade. These include: opens systems, distributed processing (initially client/server architecture), and object-oriented applications development tools.

Open systems, which can be defined in a number of ways, provides for portability of applications across heterogeneous platforms. The demand for application portability at this stage of open systems development is actually increasing the cost of software product development. One reason for the higher cost (along with increased product development risk) is the increasing complexity of the new distributed (client/server) architectures. Adding to the cost issue for vendors are the additional support costs associated with the increase in number of platforms and new architectural configurations. This is creating an environment in which strategic partnering is going to become a requirement for the longer-term survival of many applications solutions vendors. Key attributes of strategic partnering include working with other companies to increase product profitability through the use of shared distribution channels and product support resources. Such partnering contributes to improved asset utilization.

Distributed processing, currently identified primarily as client/server architectural implementations, will eventually become the dominant Information Systems paradigm. The complexity of applications solutions for such implementations will increase substantially as vendors move toward the second generation of client/server architectures. These will involve mission critical, OLTP type solutions, requiring significantly broader sets of application development skills and also cooperation with other vendors that provide complementary elements of enterprise-wide solutions. Independent software product vendors will face much greater competition in this area from systems integration, systems software vendors, and professional services companies, that have much greater experience in addressing organizational wide solutions. Thus, software vendors will need to partner with such vendors to be a part of this market.

Knowledge of *object-oriented application development technologies* will become increasingly important for all applications solutions vendors. Leading systems software vendors such as Microsoft, IBM, Novell, Apple and others have indicated that object-oriented operating systems represent strategic product directions for the mid-1990s. Object-oriented technology, for example, can address the open systems problem *if* agreement can be reached on systems standards. However, one of the major side effects of object-oriented applications development will be to further decrease the price of software (hopefully along with the cost of development), a trend that could ultimately lead to generic application solutions, with product connectivity being the major objective, and less and less value given to proprietary solutions. Plug-and-play integrated solutions could reduce many software vendor products to modular components.

Conclusions

The major available market for application solutions vendors is the current corporate in-house development market. INPUT estimates that penetration of this market by third-party vendors will be a principal stimulant to growth for the total applications solutions markets over the next five years. To effectively address this market, vendors will need to provide a customizable product solution—an additional element of product development and product support cost. To most efficiently provide customizable solutions, vendors will need to implement sophisticated application development tool frameworks which can provide the foundation for cross-platform application development and product re-engineering/maintenance. In addition, the complexity of new product implementation is requiring more consulting and systems integration skills to implement cross-platform and inter-departmental application solutions. Thus, there will be an increasing requirement for vendors that can provide more of the total solution, or life cycle product development and support.

These cost and complexity issues addressed above suggest that the independent applications solution vendors are going to find it increasingly difficult to survive without partnering or merging. INPUT believes that some of the best partners for the independent applications solutions vendors are the computer systems vendors which have open, scalable hardware architectures, the application development tool vendors (such as the leading RDBMS companies) with strong middleware and other cross-platform application development strengths and systems integrators. In addition, consulting partnerships should be created to assist in marketing to the larger corporations with more sophisticated planning/ process re-engineering front-end product development needs, and as missionaries for new product paradigms, such as object-oriented solutions.

Downsizing has yet to show major cost reductions for many early implementers, and there will be increasing pressure on vendors to reduce the price of software (through more efficient development) to address the ROI issues of downsizing.

INPUT believes that ultimately the definitions of the traditional information services delivery modes will continue to merge over the next several years, and software vendors will provide more professional services, and professional services and systems integration companies will become more involved in software development.

Applications solutions vendors that can expect to grow and prosper in this more complex environment will be those that: 1. stress open systems product development, 2. work within the optimal vertical and cross-industry markets as defined above, 3. acquire strong capabilities in leading-edge application development tool technology and 4. partner with vendors that can enhance product marketing, sales and support as well as help to reduce infrastructure costs.

This Research Bulletin is issued as part of INPUT's Information Services Market Analysis Program.
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