1997

Evaluation of SAP Services Providers in the U.S.

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Abstract

SAP continues to enjoy success with its enterprise-wide business applications products. In 1996, its U.S. revenues grew to $868 million, growing 47% from the previous year.

However, the provision of services that enable users to successfully implement and enjoy the full benefits of their SAP investment is key to the continued success of SAP.

In order to deliver an extensive array of services to all of its customers, SAP has chosen to establish a partner program.

This report analyses the market for SAP services in the U.S. and describes:

- The environments in which SAP products typically run and the implementation of SAP products
- User requirements from SAP and its partners
- The dynamics affecting the SAP services market and its likely development
- The competition faced by SAP and its services partners.

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Evaluation of SAP Services Providers in the U.S.

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Introduction

A
Objectives and Scope

During the last few years, SAP has experienced phenomenal success with its enterprise-wide business applications products in the United States. Of the four leading enterprise application product companies: Oracle, Baan, PeopleSoft and SAP, SAP has emerged as the industry leader, both in terms of sales and in the number of enterprise-class installations. SAP's 1996 Americas revenues were $868 million, an increase of 47% over the previous year.

One of SAP's principal marketing strategies is to work with services "partners," independent companies that are trained to scope, install, customize and maintain SAP's products. These partners also participate heavily in the sales process and in fact may be the lead selling organization at some accounts. INPUT estimates that in 1996 the size of the services opportunity built around SAP products in the U.S. was well in excess of $1 billion and that this opportunity could grow to as much as $4 billion in five years (2001).

This study is designed to accomplish the following objectives:

- Help vendors understand the dynamics affecting SAP-related product and services markets
- Help users to understand the environments in which SAP products are often deployed
- Inform SAP services vendors about the nature of key marketing, procurement and technical issues

- Show how users perceive specific vendors.

B
Research Methodology

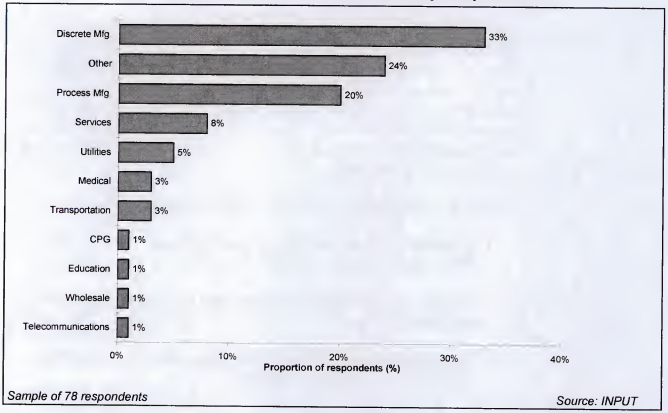
INPUT interviewed 78 organizations currently using SAP product in the U.S. and 79 organizations in the US who are planning to undertake large-scale systems development or integration projects over the course of the next year. Of the latter group, 18 organizations would consider implementing SAP in the near term.

SAP Users

Of the respondent base of 79 users, 95% are R/3 sites, with the balance being R/2 sites. INPUT estimates that, at the end of 1996, SAP had approximately 700 customers in the US, so the survey sample represents over 10% of SAP's US customer base. Exhibit I-1 shows how the sample was distributed by industry sector. With over half the sites represented, manufacturing dominates the installations interviewed. The results are consistent with the SAP installation population as a whole. All of the respondents were Fortune 1000 class companies.

Exhibit I-1

Industry Distribution of SAP User Survey Respondents



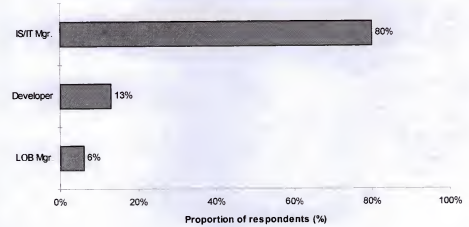
Sample of 78 respondents

Source: INPUT

There were three types of individuals interviewed: IT Managers, Developers and Line-of Business Managers. Exhibit I-2 shows how the interview sample was distributed as a function of job title. In all cases, INPUT attempted to interview the person most knowledgeable about the SAP installation. As the exhibit shows, most of the sample were IT managers.

Exhibit I-2

Job Functions of User Survey Respondents



Sample of 78 respondents *Source: INPUT*

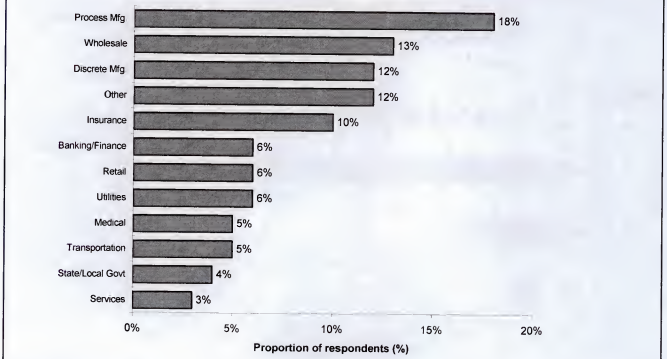
As noted above, most of the sites had installed R/3, but only a very few had migrated from R/2, indicating that most of the installations were new with version R/3. A substantial percentage of the sample outsourced either operations (40%) or applications (15%).

SAP Non-Users

The industry sector distribution of the non-user sample population is given in Exhibit I-3. Here, manufacturing accounted for 30% of the sample followed by wholesale and insurance. Again, all of the respondents were Fortune 1000 class companies or large government agencies.

Exhibit I-3

Industry Distribution of Non-User Survey Respondents

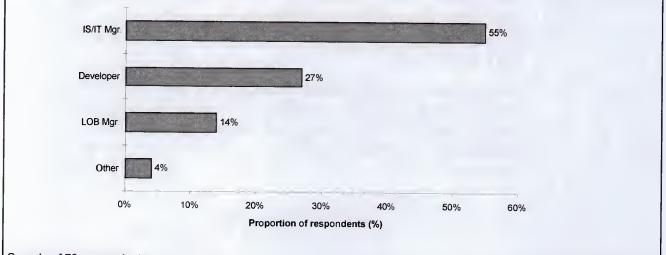


Sample of 79 respondents *Source: INPUT*

Exhibit I-4 shows how the non-user sample was distributed as function of job title.

Exhibit I-4

Job Functions of Non-User Survey Respondents



Sample of 79 respondents *Source: INPUT*

C
Report Structure

The remaining chapters of this report are as follows:

- Chapter II is an executive summary which provides a synopsis of the key findings of the study
- Chapter III analyzes existing SAP implementations in the U.S. including hardware and database platforms, implementation approaches, costs and timescales
- Chapter IV analyzes user satisfaction with SAP products and services vendors, together with R/3's ability to meet business objectives and service vendor pricing approaches
- Chapter V analyzes user requirements and purchasing intentions, together with the SAP buying process for both solutions and services
- Chapter VI analyzes levels of vendor awareness
- The appendix contains the questionnaires used for the surveys.

D
Related INPUT Reports

Other INPUT reports which address topics related to the subjects discussed herein include the following:

Evaluation of SAP Services Providers in Europe

Evaluation of SAP Services Providers in Germany

Evaluation of SAP Services Providers in the U.K.

Evaluation of SAP Services Providers in France

European Business Integration Market, 1996-2001

Enterprise-Wide Database Services, European User Perspectives

Software Product Support Market Analysis and Trends, Europe 1996-2001

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II

Executive Summary

A

SAP Americas Revenues Up by 47% in 1996; Services Prosper

SAP continued its torrid pace of growth as Americas revenues, most of which derives from the U.S. increased 47% in 1996 to $868 million. However, the provision of services that enable users to successfully implement and enjoy the full benefits of their SAP investment is key to the continuing success of SAP.

In order to deliver an extensive array of services to its customers, SAP has established several programs designed to enlist services firms as "partners." The larger of these partner firms are experienced IT consulting organizations. Many are affiliated with the Big 6 accountancies such as KPMG and Price Waterhouse, large management consulting firms such as A.T. Kearney, systems vendors such as IBM or Hewlett-Packard and traditional services firms such as CSC and Perot Systems. Some 70% of the SAP installations interviewed for this study used outside services firms.

This high level of need for assistance has created a highly competitive open market for SAP services and offers users a choice of services vendors.

It is also apparent that the pool of expertise that can address the SAP problem set is severely restricted. There are simply not enough well-trained consultants available, from either SAP or its services partners to address the needs of the American market. Thus, those services firms that can hire and train the best and the brightest ahead of the competition should enjoy a substantial competitive advantage.

Organizations intending to implement large-scale resource planning applications see the biggest SAP-related negative as cost. SAP is perceived as one of the most expensive solutions. While services vendors can't very well address the issue of SAP's pricing, they can mitigate the issue by adopting cost-effective implementation methodologies, efficient training programs and providing other services that focus on lowering overall cost of ownership.

Against this background, recent INPUT research reveals that in order to enjoy success, services vendors must

- Assist clients in reducing business process costs
- Encourage clients to use a formal implementation method
- Increase their emphasis on user training
- Provide a high level of technical support
- Acquire expertise in products that inter-operate with SAP products with emphasis on growth areas such as Windows NT and Microsoft's SQL Server.

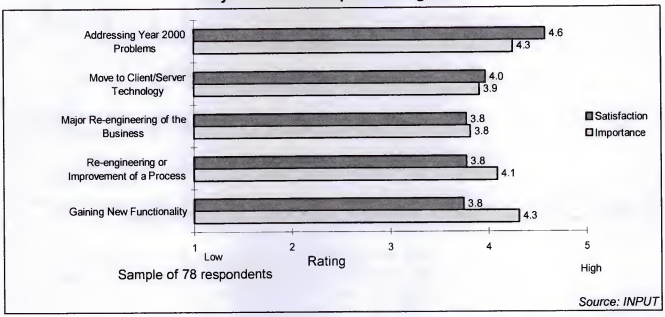
B
Reduced Business Costs Are Not Automatically Achieved

SAP business application development projects are strongly driven by business related issues. Among these issues, tactical reengineering such as process change or workflow improvement is an important objective of SAP users and potential users. Reducing business costs is another important objective.

Exhibit II-1 lists some of the benefits of SAP implementation that are relatively well realized in practice.

Exhibit II-1

Key Benefits of Implementing SAP



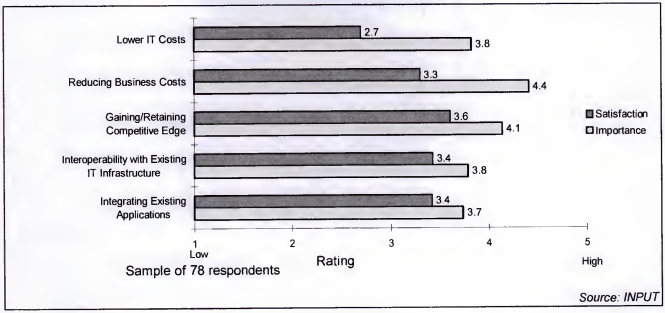
Source: INPUT

While there is some need for improvement in process reengineering and implementing improved functionality, SAP implementations are relatively successful in assisting organizations in reengineering at both the overall company and individual process level.

However, as shown in Exhibit II-2, there are some areas, including reducing business costs, in which potential benefits are less fully realized.

Exhibit II-2

Shortfalls In Benefit Achievement



Source: INPUT

In response, vendors must assist clients in deciding the levels of process reengineering and customization that are appropriate for their organization. SAP R/3 offers organizations an opportunity to simplify many of their business processes. This simplification may have a significant impact on the overall effectiveness and efficiency of the underlying business.

It is important when evaluating the manner in which R/3 is to be applied to the business that vendors address the efficiency of future business processes as well as their effectiveness.

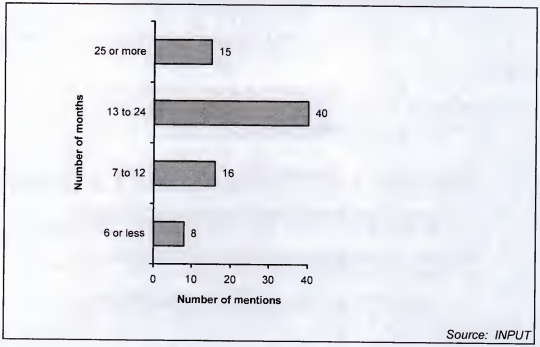
C
Encourage Clients To Use A Formal Implementation Method

INPUT research reveals that the average implementation time for an SAP R/3 project in the U.S. is 20 months and that users are typically satisfied with the achievement of project deadlines.

Exhibit II-3 lists the profile of SAP implementation times found in the U.S.

Exhibit II-3

Time from Business Case to Operational Status



Source: INPUT

However, this average figure should not be taken at face value. Implementation times are affected by a multitude of variables which vary greatly across different organizations.

No two enterprises are identical, so the task of implementation will differ significantly from organization to organization. Typically, SAP products are customized to carry out business processes. For some business processes, this may be a relatively simple task, for others it may be extremely complex.

Long implementation times are strongly affected by the complexity of R/3. This complexity lends itself to rich functionality which many enterprises are keen to leverage.

At present, the majority of organizations that have implemented R/3 express a high level of satisfaction with their service vendor's ability to meet deadlines. However, this may change as the average size of organization implementing R/3 decreases.

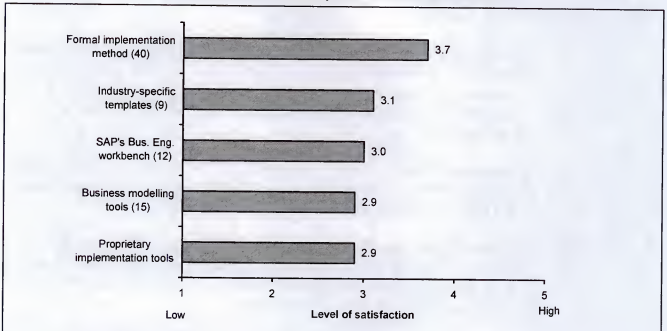
Smaller organizations have less of a requirement for sophisticated functionality and more often than not are unable to afford long implementation times.

Overall, services vendors that can offer (relatively) easy to use methodologies that shorten implementation/upgrade times will enjoy a significant competitive advantage. This is particularly true in the case of smaller businesses where implementation delays are more apt to have a devastating impact than they are on larger businesses which are more likely to have better backup provisions or alternate solutions that can be employed temporarily.

It is also important that the service vendor chosen has a strong formal implementation methodology. However, as shown in Exhibit II-4, the current level of satisfaction with some of these approaches is low.

Exhibit II-4

Satisfaction with Implementation Methods



Sample of 78 respondents. Standard error = 0.1

Source: INPUT

In particular, users tend to treat proprietary implementation methodologies with some disdain these days, so that it behooves the services vendor to employ methodologies that are fully compliant with industry standards and avoid the arcane. The use of so-called "templates" is the method that appears to hold the most promise. Although SAP's tool, the BEW or Business Engineering Workbench, has been highly publicized, the survey results indicate that most users do not hold it in high regard. However, this may be due to lack of understanding on the part of users rather than inadequacy of the tools used. It is important that vendors assist in educating users in the implementation options available and their potential implications and benefits.

Vendors should consider the following ways in which SAP is addressing long R/3 implementation times:

- Its Business Engineering Workbench (BEW), now known as Business Engineer automates some of the implementation process. In effect, it acts as a 'Wizard' for some elements of the implementation process

- The porting of pre-defined templates to user installations. Partners are increasingly creating templates that mask much of the product's complexity
- Encouraging hardware partners to pre-install R/3 on their platforms; Hewlett-Packard, for example, now sells its kit with R/3 pre-installed
- The launch of Accelerated SAP (ASAP) which is a fast implementation version of R/3. ASAP ensures that R/3 is partly configured on delivery.

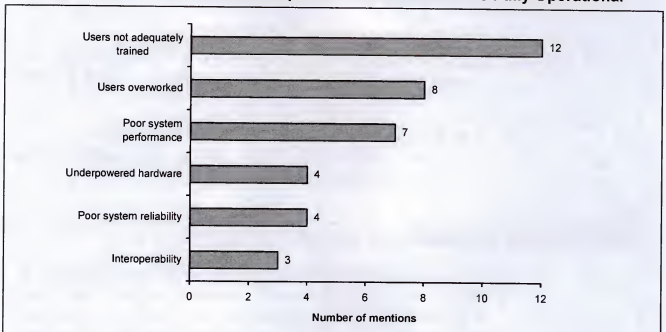
D
Place A Strong Emphasis On Provision Of User Training

SAP software is highly praised by existing users for its wide range of modules, the level of integration between modules, its functionality and its flexibility. However, these attributes often result in a high level of complexity. In addition, SAP is often regarded as hard to use and its reporting capabilities received a relatively low satisfaction rating.

Consequently it is easy for organizations to underestimate, or over-economize on, provision of user training. As shown in Exhibit II-5, inadequate user training is the major problem reported once SAP has become fully operational.

Exhibit II-5

Problems Reported Since SAP Became Fully Operational



Sample of 78 respondents.

Source: INPUT

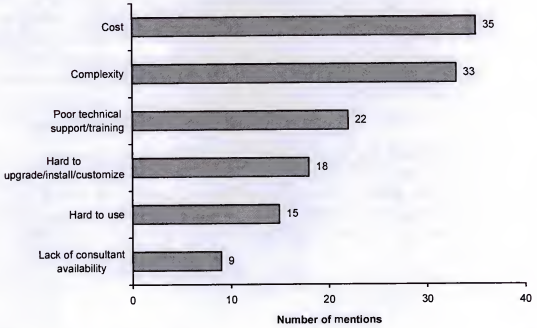
The adoption of R/3, possibly accompanied by a high level of process reengineering, will produce major changes in environment for end users of the system. This will generate dissatisfaction and considerable pressure on support resources unless the implementation is accompanied by a high level of end user training. It is important that vendors ensure that client organizations recognize the magnitude of the change being undergone and make adequate training and support provision. Furthermore, they must budget adequately for end user training.

E
A High Level of Technical Support Is Critical

Exhibit II-6 lists the major perceived weaknesses of SAP software.

Exhibit II-6

SAP Weaknesses



Sample of 78 respondents. *Source: INPUT*

SAP software is often perceived to be complex and difficult to customize. In addition, existing users express only moderate levels of satisfaction with their ability to integrate R/3 with existing applications and its interoperability with the existing IT infrastructure. Consequently, R/3 requires a high level of ongoing technical support.

However, many R/3 users are not happy with the availability of on-going support. Users were asked to indicate their levels of satisfaction with on-going support (where 1=low and 5=high). The average satisfaction score for on-going support was 3.5. A score of 3.9 or above would indicate that users were on the whole happy with on-going support. A score of less than 3.8 indicates that there is significant scope for improvement.

In addition to the complexity of R/3, poor satisfaction ratings for on-going support are strongly affected by insufficient available R/3 skills in the marketplace and the high cost of those skills.

Services providers must ensure that they have an adequate support framework and the necessary support personnel in place.

F

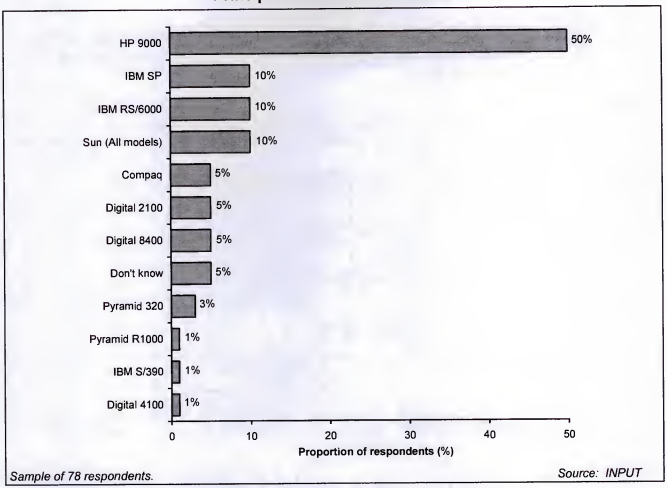
Services Vendors Must Offer Expertise In Products That Interoperate With SAP Products

SAP software must, of necessity, run on a variety of software and hardware platforms that include the server hardware, desktop hardware and the networks to which they attach, the server and desktop operating systems, and, usually, a relational database management system. In order to be a successful SAP services partner, the services vendor must have expertise on all of the platforms to be used by the customer in addition to knowledge of SAP and the applications environment.

In the U.S., half of current R/3 implementations run on an Hewlett-Packard kit (see Exhibit II-7). Hewlett-Packard now has a closer relationship with SAP than any other hardware vendor and is enjoying considerable success in the SAP services market. Indeed, it now sells R/3 pre-installed on both its NT-based NetServers and its HP-UX HP9000 servers.

Exhibit II-7

Principal SAP Server Platforms



Sample of 78 respondents. *Source: INPUT*

IBM is the number two server vendor. Versions of SAP products run under both MVS and AIX. Digital Equipment is number three with Digital UNIX. We expect IBM to gain market share in the future, partly because it is "getting its partner act together," and partly because IBM Global Services is now the largest IT services firm in the world with over 100,000 employees and a global reach second to none. In addition, substantial price/performance improvements in the S/390 world, such as fast CMOS processors and Parallel Sysplex, will make the mainframe a more attractive platform to customers who prefer to stay in the glass house. The results of this study show that more sites planning future implementations expect to be on IBM platforms than those of any other company including HP.

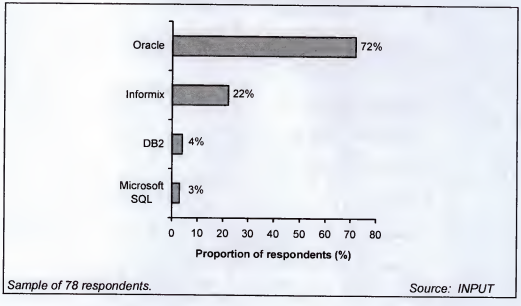
Sun, Compaq, Digital and Pyramid are the other hardware players with significant SAP installed bases in the U.S. at present.

Database expertise is key as R/3 projects increasingly require the integration of SAP products with databases.

Oracle currently reigns supreme as the database of choice for SAP users in the U.S. Over 70% of R/3 installations run on an Oracle database (see Exhibit II-8).

Exhibit II-8

Principal SAP DBMS Platforms



Sample of 78 respondents. *Source: INPUT*

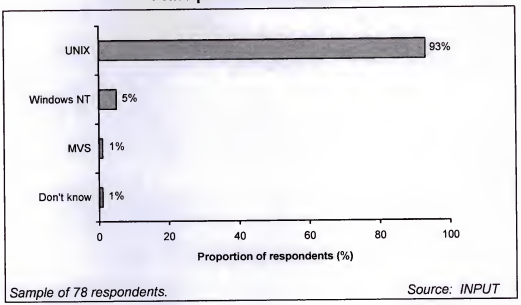
Although Oracle recently launched a campaign focused on delivering services to users running both Oracle and SAP, we expect that Oracle will lose some market share (relative to SAP installations) in the future. Part of the reason is that Oracle's application software division is a major competitor to SAP. Another reason is the growing popularity of Windows NT, and the very strong likelihood that Microsoft will become a major player in the high end DBMS market.

In addition to Oracle, Informix and Microsoft's SQL Server database products can underlie R/3. Indeed, the installed base of NT Servers is expected to grow and Microsoft's SQL Server is the dominant database on that platform. SAP has launched a version of R/3 for NT, so SQL Server can be expected to emerge as a major database platform for R/3 over the next few years.

Although, as shown in Exhibit II-9, UNIX is the predominant operating system underlying SAP implementations at present, this dominance will change in the near future.

Exhibit II-9

Principal SAP OS Platforms



Sample of 78 respondents. *Source: INPUT*

Vendors must be aware that NT is now an option, in addition to UNIX, as an operating system running under R/3, and will increase its market share as a server platform significantly over the next few years.

Accordingly, vendors must offer expertise in all of the platforms and software products on which prospects may wish to run R/3, or might wish to run R/3 in the near future.

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III

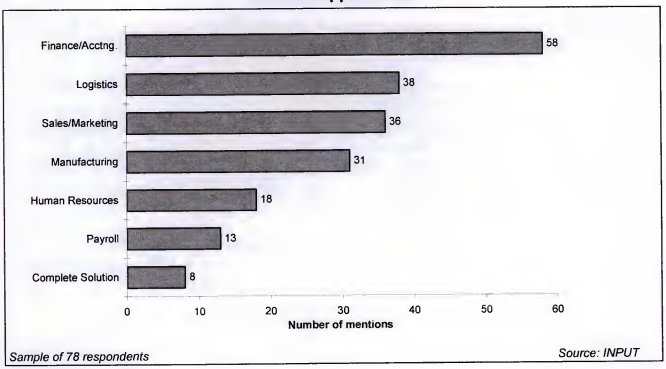
SAP Implementation

This chapter analyzes existing SAP implementations in the U.S. including hardware and database platforms, implementation approaches, costs and timescales.

A
Modules Installed

The installed base of applications for the survey respondents is shown in Exhibit III-1.

Exhibit III-1



Sample of 78 respondents

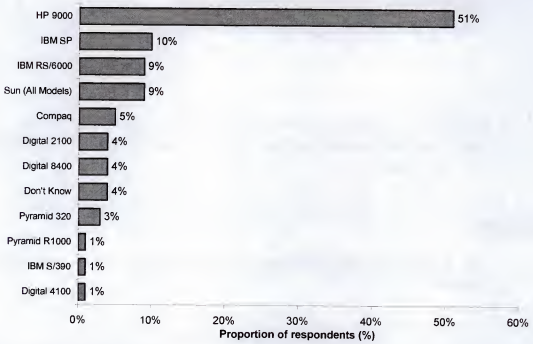
Source: INPUT

B
SAP Platform Environment

Exhibit III-2 shows the profile of SAP server platforms deployed by users.

Exhibit III-2

Principal SAP Server Platforms



Sample of 78 respondents *Source: INPUT*

Hewlett-Packard has established itself as the dominant R/3 hardware platform and its equipment is used by approximately half of R/3 implementations. H-P has worked closely in Germany and elsewhere to create a strong relationship with SAP, investing heavily in SAP Competency Centers and in using the strength of their professional services business to jointly bid for projects with SAP or refer their existing customers towards SAP.

Indeed, H-P now sells SAP R/3 pre-installed on both its NT-based NetServers and HP-UX9000 servers. In effect, H-P has become an SAP OEM customer, offering customers turnkey R/3 systems.

H-P's firm commitment to partnering has clearly paid handsome dividends.

H-P's closest rival in the R/3 hardware platform marketplace is IBM which provides around 20% of the R/3 base infrastructure. IBM has also, in a similar fashion to H-P, attempted to work collaboratively with SAP.

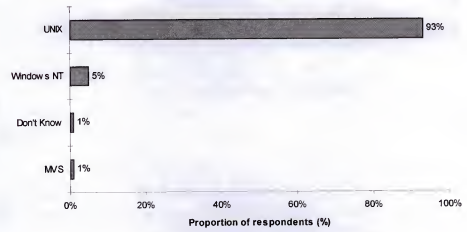
From a purely professional services perspective, IBM Global Services has been extremely successful in the SAP third party professional services market, establishing a position as one of the leading world-wide players. IBM has had to demonstrate its "open" credentials though and in many assignments work on non-IBM kit.

Digital is third with 9%.

Exhibit III-3 provides a profile of the operating systems used in conjunction with SAP.

Exhibit III-3

Principal SAP OS Platforms



Sample of 78 respondents *Source: INPUT*

Over 90% of the sites interviewed were running SAP on UNIX. Given the equipment profile shown earlier, it is probable that the dominant variants of UNIX used are HP-UX and AIX.

Windows NT is just beginning to establish itself in the SAP-related operating system market. NT can be expected to increase its share significantly over the next few years for the following reasons:

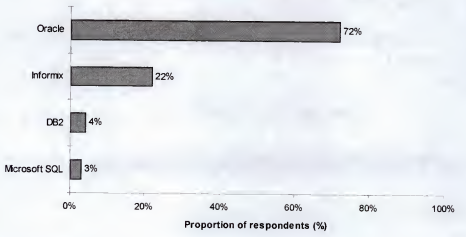
- The installed base of NT Server is growing at 100% per annum
- H-P is now shipping SAP pre-installed on its NT-based NetServers

- SAP is working closely with Microsoft with regard to standards and an Internet-enabled version of R/3
- Microsoft's SQL Server which runs most effectively on NT is becoming increasingly popular.

Exhibit III-4 provides a profile of DBMS platforms underlying R/3.

Exhibit IV-4

Principal SAP DBMS Platforms



Sample of 78 respondents *Source: INPUT*

Oracle has a commanding lead with over 70% of the installations. However, Oracle's strategy will become an increasing threat to SAP as it further penetrates the business applications market.

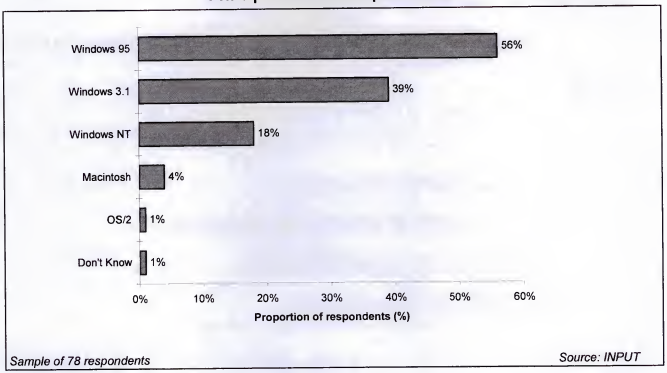
Oracle is aggressively pursuing a strategy of adding functionality to its own enterprise application product, Oracle Applications, in an attempt to compete more fully with R/3. For example, Oracle has recently acquired Datalogix, a company that develops client/server software for the process manufacturing sector.

Understandably, SAP has formed close relationships with both Informix and Microsoft in order to become less reliant on a competitor. This offers Informix and Microsoft opportunities in SAP-related markets. However, at present, Informix is a distant second in the U.S. with less than a quarter of the installed base.

Exhibit III-5 indicates the user interfaces employed by SAP users.

Exhibit III-5

Principal SAP Desktop Interface



Sample of 78 respondents *Source: INPUT*

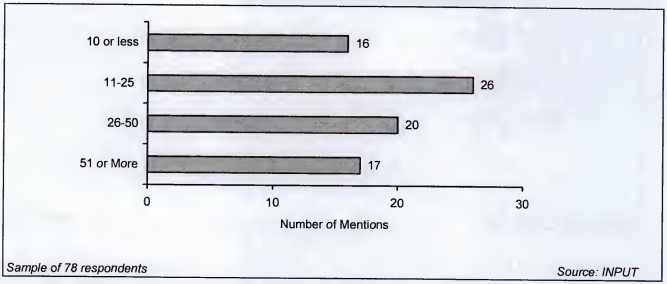
There is no surprise that Windows dominates, but it is surprising, given the dominance of UNIX on the server platform, that not one of the sites interviewed has UNIX workstations or even X Terminals deployed as an SAP front end.

C
Implementation Costs And Timescales

Exhibits III-6 and III-7 indicate the distribution of in-house and services vendor personnel employed in SAP implementations.

Exhibit III-6

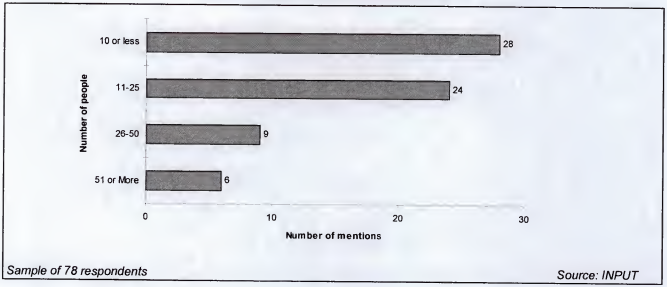
Number of Full-time People Employed for SAP Implementation: In-house



Sample of 78 respondents *Source: INPUT*

Exhibit III-7

Number of Full-time People Employed for SAP Implementation: External



Sample of 78 respondents *Source: INPUT*

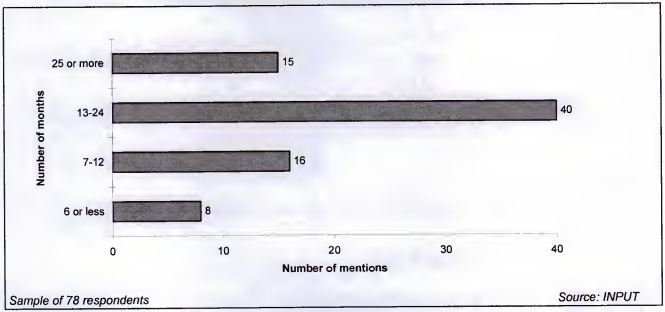
The typical SAP installation in the U.S. involves 25 in-house personnel and 15 personnel from an external services vendor.

The number of personnel involved in future R/3 projects can be expected to decline as SAP and its partners address criticisms regarding the complexity of SAP R/3 implementation.

Exhibit III-8 indicates how long it took for an SAP implementation from the time the business case was made to the time the system was put on operational status.

Exhibit III-8

Time from Business Case to Operational Status



Sample of 78 respondents *Source: INPUT*

The average implementation time for R/3 is 20 months.

The majority of respondents said that the time ran from 12-24 months. However, about 20% of the sample said their installations took more than two years and an equal number said it took from 7-12 months. Only 10% of the survey population indicated that implementation took less than six months. All of those falling into the latter group implemented a small number of modules.

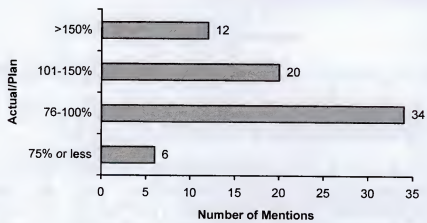
Smaller companies often have the greatest concerns regarding implementation times. SAP has responded by:

- Introducing its Business Engineering Workbench (BEW), now known as Business Engineer, which automates some of the implementation process. In effect, it acts as a 'Wizard' for some elements of the implementation process
- Enabling the porting of pre-defined templates to user installations. Partners are increasingly creating templates that mask much of the product's complexity
- Encouraging hardware partners to pre-install R/3 on their platforms; H-P now sells its kit with R/3 pre-installed.
- Introducing Accelerated SAP (ASAP) which is a fast implementation version of R/3. ASAP ensures that R/3 is partly configured on delivery.

Respondents were asked how their actual expenses and time-to-implement compared with plan. The results are given in Exhibits III-9 and III-10.

Exhibit III-9

How Implementation Expenses Compared to Plan

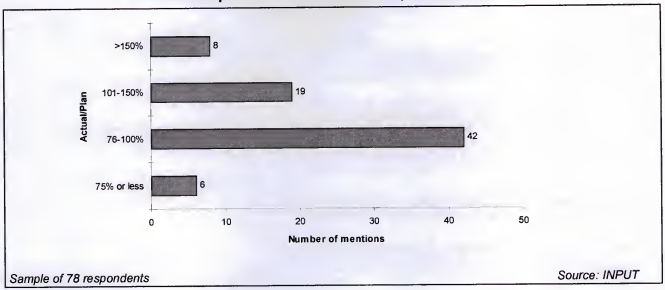


Sample of 78 respondents

Source: INPUT

Exhibit III-10

How Implementation Time Compared to Plan



Sample of 78 respondents *Source: INPUT*

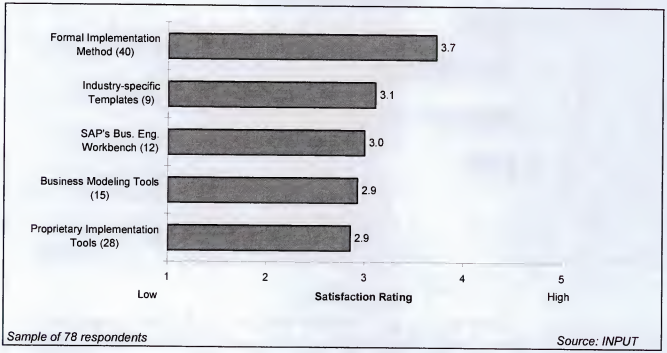
On the expense side, 56% of the respondents said they were on or beat plan. On the time-to-implement measure, 64% or about two-thirds of the respondents indicated that they were on or beat plan.

D
Implementation Approaches

Respondents were asked to indicate which implementation methodologies were used by their services vendors and to rate their level of satisfaction with each on a scale of 1-5. The results are given in Exhibit III-11. On this chart, ( ) indicates the number of respondents rating each category.

Exhibit III-11

Satisfaction with Implementation Technologies Used By Services Vendors



Sample of 78 respondents

Source: INPUT

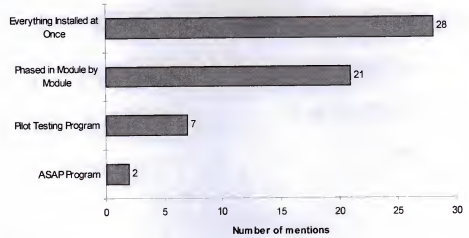
Respondents are clearly more satisfied with formal implementation methodologies than with proprietary approaches and so far there are low levels of satisfaction amongst organizations that have adopted either industry-specific templates or SAP's Business Engineering Workbench.

In the case of Business Engineering Workbench, it appears that some organizations are using the tool to its full potential while others are not. Services vendors should ensure that users fully understand Business Engineering Workbench and are in a position to take advantage of its benefits should they wish to do so.

Respondents were asked which implementation approach was taken in their SAP installation. Exhibit III-12 shows that most users either installed everything at once or phased in module by module. Less than 4% of the sample took advantage of the recently introduced ASAP (Accelerated SAP) program, which would not have been available at the time of the majority of installations analyzed here.

Exhibit III-12

SAP Implementation Approaches Used



Sample of 78 respondents *Source: INPUT*

Again, there is a case for vendors ensuring that their clients fully understand all the implementation options and approaches open to them.

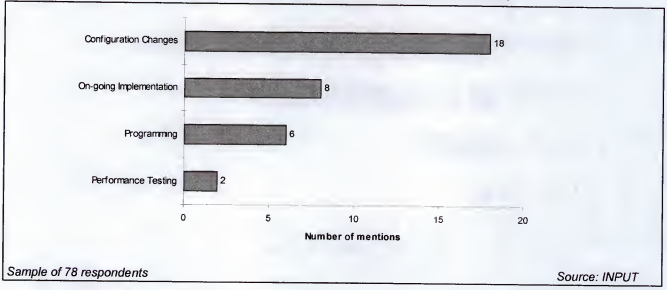
Respondents were asked to state which elements of their SAP installation they were particularly satisfied with and particularly dissatisfied with. The most oft-mentioned elements of satisfaction were *integration* and *functionality*. The most oft-mentioned elements of dissatisfaction were *support*, *training*, *cost* and *complexity*.

Next, respondents were asked to list the requirements they had which were not adequately met by their services vendor. Thirty-five per cent (20) of the 54 respondents that had used a services vendor identified unmet requirements. Almost all of these respondents stated that the problems were due to the fact that the vendor lacked the technical, application or project management expertise needed to do the job. Of the 20 respondents, 65% (13) thought that another services vendor could have done the job. Only seven respondents thought that no outside services vendor could have adequately addressed the problems encountered.

Respondents were then asked if their organizations were capable of running their SAP installations without outside help. These respondents were asked in which areas they needed ongoing outside help. The results to this query are given in Exhibit III-13. The areas are mostly concerned with ongoing program modifications such as adds and changes.

Exhibit III-13

Areas Where Users Would Like Continued Help

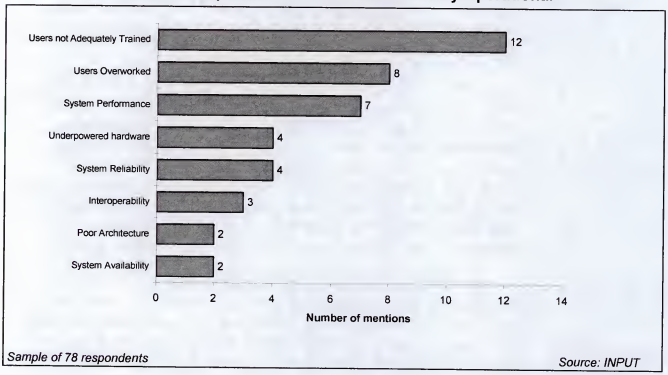


Sample of 78 respondents *Source: INPUT*

The respondents with SAP installed were asked what problems had cropped up since the system reached fully operational status. The results are shown in Exhibit III-14.

Exhibit III-14

Problems Reported Since SAP Became Fully Operational



Sample of 78 respondents *Source: INPUT*

The key issue here is training, a theme that cropped up repeatedly throughout the survey.

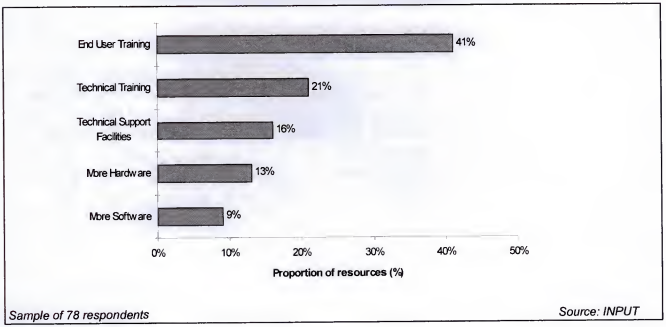
SAP R/3 is often praised for its functionality and flexibility. However, these attributes often result in a high level of complexity. Accordingly, it is easy for organizations to underestimate, or over-economize on, provision of user training.

The adoption of R/3, possibly accompanied by a high level of process reengineering, will produce major changes in environment for users of the system. This will generate dissatisfaction and considerable pressure on scarce support resources unless the implementation is accompanied by a high level of user training. It is important that vendors assist their clients in recognizing the magnitude of the change being undertaken and make adequate training and support provision. In particular, they must budget adequately for user training.

Finally, respondents were asked to state how they would allocate their available investment resources to improve usage of their SAP system. The results are given in Exhibit III-15.

Exhibit III-15

What Percentage of Available Investment Resources Would You Allocate to Improve SAP System Usage?



Sample of 78 respondents *Source: INPUT*

Here again, the training issue comes through as a top priority. Only a small percentage of the resources would go to additional hardware or software. However, by this stage it is a little late to recognize that increased priority should have been given to user and support staff training earlier in the project.

E
Implementation Expenditure

Respondents were presented with a list of expense items they might encounter in implementing SAP.

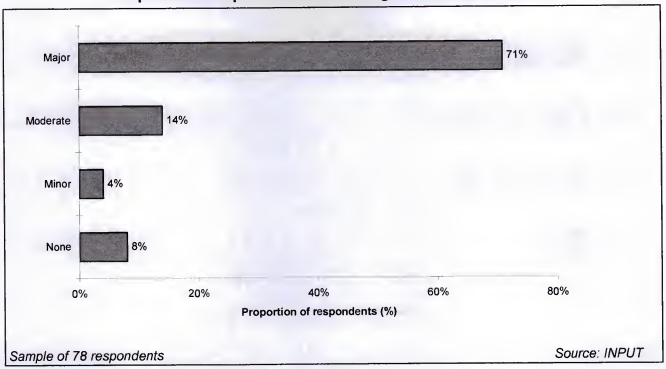
The series of Exhibits, III-16 through III-25, indicate the level of expense that respondents anticipated when planning for their SAP installations. Items rated as major expense items by more than half the respondents included:

- Software license fees
- Systems configuration services
- Consulting from SAP
- Consulting from other sources
- Software implementation by SAP partners.

While organizations place considerable emphasis on consulting and implementation costs, there is a danger, partially identified earlier, that organizations tend to under-estimate the spend required for user training and server hardware. A significant minority of users complained post-implementation that their system performance was inadequate or under-powered. In addition, there is a danger that organizations may under-estimate the degree of reengineering involved in implementing R/3.

Exhibit III-16

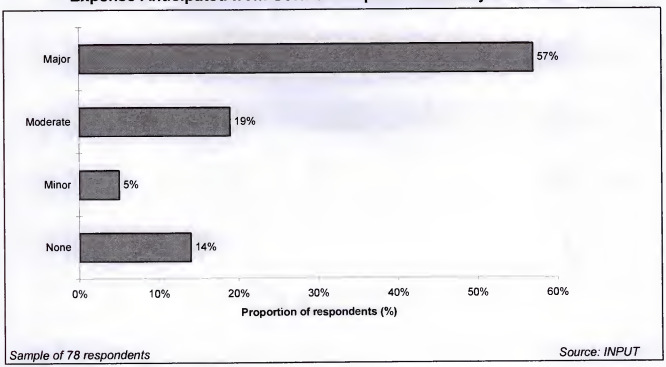
Expense Anticipated for Consulting from Other Sources



Sample of 78 respondents *Source: INPUT*

Exhibit III-17

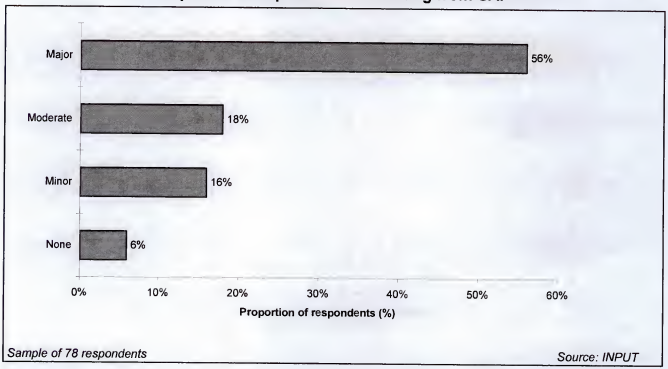
Expense Anticipated from Software Implementation by SAP Partners



Sample of 78 respondents *Source: INPUT*

Exhibit III-18

Expense Anticipated for Consulting from SAP

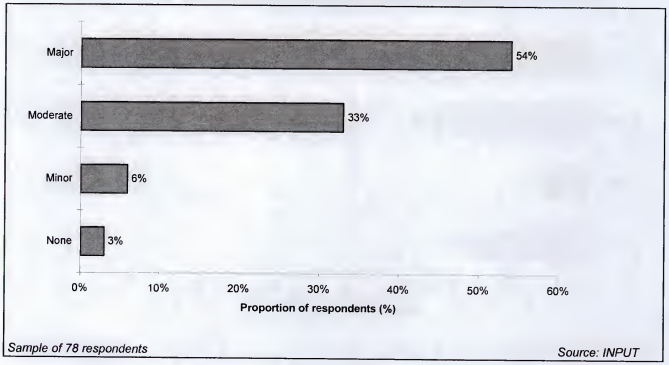


Sample of 78 respondents

Source: INPUT

Exhibit III-19

Expense Anticipated for Software License Fees

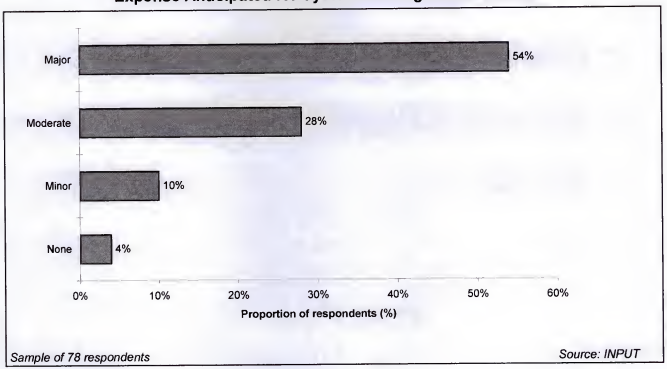


Sample of 78 respondents

Source: INPUT

Exhibit III-20

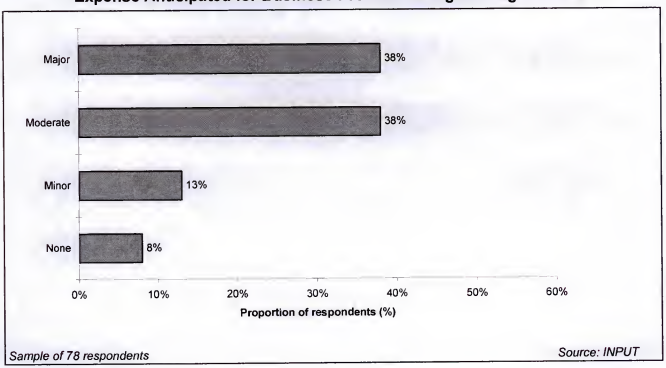
Expense Anticipated for Systems Configuration Services



Sample of 78 respondents *Source: INPUT*

Exhibit III-21

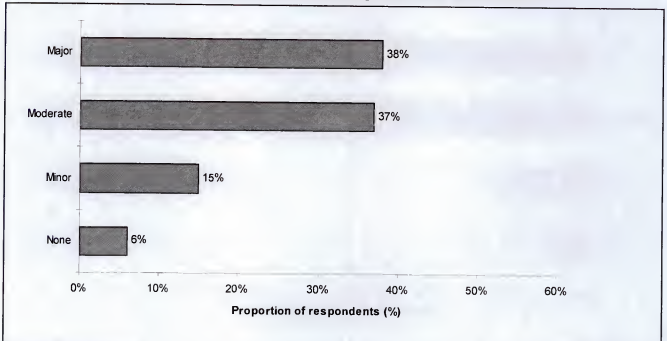
Expense Anticipated for Business Process Reengineering Services



Sample of 78 respondents *Source: INPUT*

Exhibit III-22

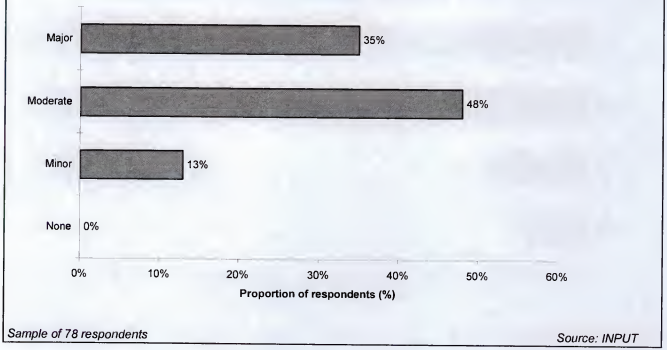
Expense Anticipated for Tailoring/Enhancement Services



Sample of 78 respondents *Source: INPUT*

Exhibit III-23

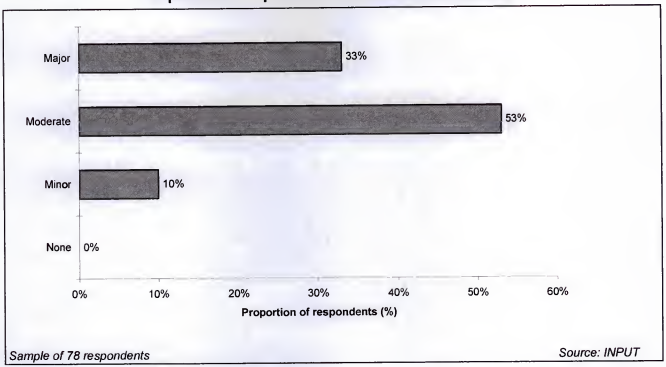
Expense Anticipated for Server Hardware



Sample of 78 respondents *Source: INPUT*

Exhibit III-24

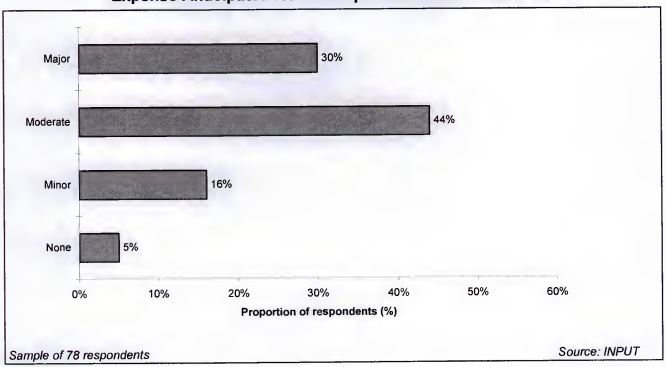
Expense Anticipated for Education and Training



Sample of 78 respondents *Source: INPUT*

Exhibit III-25

Expense Anticipated for Desktop Hardware and Networks



Sample of 78 respondents *Source: INPUT*

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IV

User Satisfaction

This chapter analyzes user satisfaction with SAP products and services vendors, together with R/3's ability to meet business objectives and service vendor pricing approaches.

A
Satisfaction with SAP Products

Respondents were asked to rate their level of satisfaction with several characteristics of SAP's software. The results are shown in Exhibits IV-1 and IV-2.

Exhibit IV-1

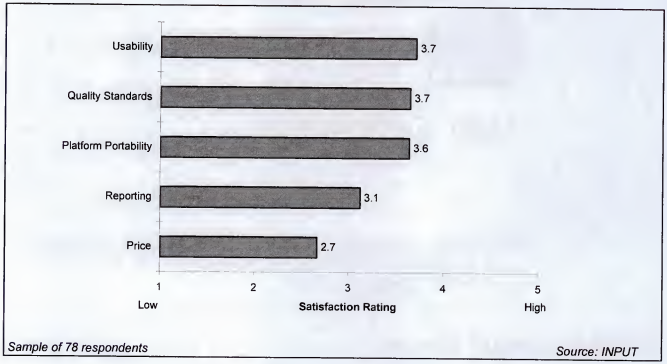
SAP Characteristics: Higher Satisfaction

Sample of 78 respondents

Source: INPUT

Exhibit IV-2

SAP Characteristics: Lower Satisfaction



Sample of 78 respondents

Source: INPUT

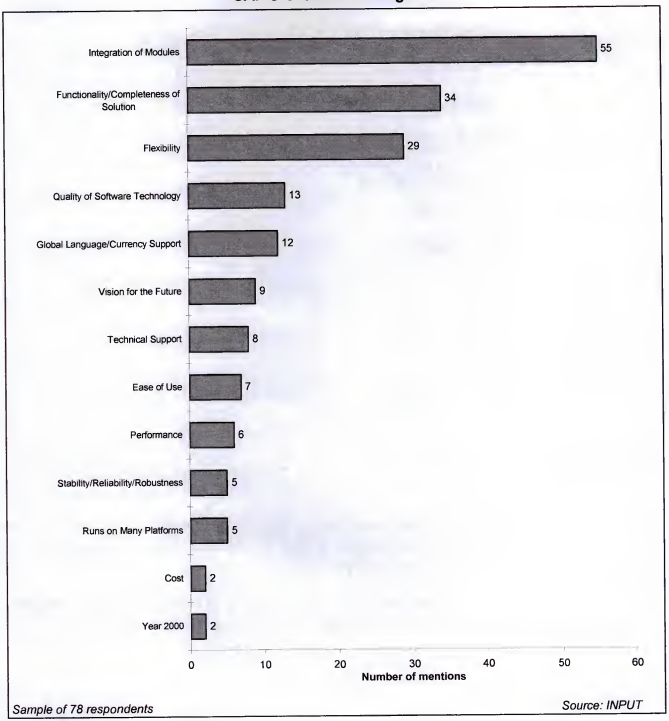
SAP gets high marks for functionality and the range of modules incorporated into its system. Low marks were given for the reporting facility and, lowest of all, price.

The latter is a serious threat to SAP. SAP and its partners are now targeting smaller organizations as well as large enterprises. Smaller organizations are typically much more price sensitive and low cost SAP alternatives will make inroads at this level. There is a danger that SAP will increasingly find that its competitors enjoy success on the basis of price as business applications become more commodotized.

Exhibits IV-3 and IV-4 contain lists of SAP's greatest strengths and weaknesses as reported by respondents ordered by number of mentions.

Exhibit IV-3

SAP's Greatest Strengths

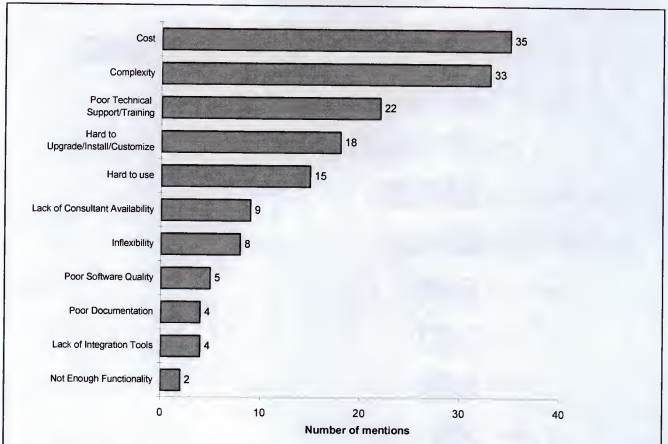


Sample of 78 respondents

Source: INPUT

Exhibit IV-4

SAP's Greatest Weaknesses



Sample of 78 respondents

Source: INPUT

SAP's greatest strengths are the integration of modules, functionality and flexibility. The software's greatest weaknesses are its cost, complexity and poor technical support.

Services vendors should stress their ability to assist clients in overcoming these disadvantages through their experience and strong support capability.

B
Achievement of Objectives

Respondents were then asked to rate their satisfaction with their SAP solution in terms of meeting a number of objectives. The ratings were in two parts: satisfaction and importance on the basis that a low satisfaction rating has less significance if the issue is not important. The results are depicted in Exhibit IV-5 and IV-6.

Exhibit IV-5

Satisfaction with Objectives

	Importance Rating	Satisfaction Rating	Difference
Addressing Year 2000 Problems	4.3	4.6	-0.3
Move to Client/Server Technology	3.9	4.0	-0.1
Use Best of Breed Software	3.4	3.4	0.0
Major Re-engineering of the Business	3.8	3.8	0.0
Re-engineering or Improvement of a Process	4.1	3.8	0.3
Integrating Existing Applications	3.7	3.4	0.3
Interoperability with Existing IT Infrastructure	3.8	3.4	0.4
Creating Barriers to Competition	3.2	2.8	0.4
Gaining/Retaining Competitive Edge	4.1	3.6	0.5
Gaining New Functionality	4.3	3.8	0.6
Opening Up New Revenue Channels	3.6	2.9	0.6
Reducing Business Costs	4.4	3.3	1.1
Lower IT Costs	3.8	2.7	1.1

Source: INPUT

The most important objectives are *reducing costs, increasing functionality, addressing Year 2000 problems* and *gaining a competitive edge.* Yet only in respect to the Year 2000 issue did satisfaction match the level of importance. The biggest "gaps" (difference between satisfaction and importance ratings) were consistently related to cost issues.

Exhibit IV-6

Satisfaction with Objectives

	High Satisfaction	Medium Satisfaction	Low Satisfaction
High Importance	Addressing Year 2000 Problems Move to Client/Server Technology	Re-engineering or Improvement of a Process Gaining/Retaining Competitive Edge Gaining New Functionality	Reducing Business Costs
Medium Importance		Major Re-engineering of the Business Integrating Existing Applications Interoperability with Existing IT Infrastructure Use Best of Breed Software	Opening Up New Revenue Channels Lower IT Costs
Low Importance			Creating Barriers to Competition

Source: INPUT

SAP R/3 is clearly something of a disappointment to users in terms of its ability to reduce both IT costs and, more importantly, business costs.

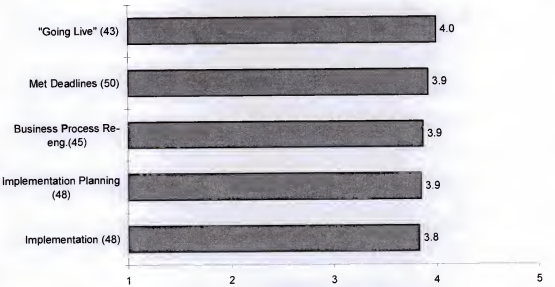
In addition, there is scope for improvement in using SAP to implement process reengineering and in gaining access to new functionality. There may be opportunities for services vendors, with a greater knowledge of R/3 than their clients, to assist their clients in achieving these benefits. This will necessitate a strongly business-focused approach to R/3 implementation rather than a more reactive technical implementation approach.

C
Satisfaction with Services Vendors

Respondents were asked to rate the relative importance of a number of performance characteristics of services vendors on a scale of 1-5. The results are given in Exhibits IV-7 and IV-8. The numbers in ( ) refer to the number of respondents who rated the category.

Exhibit IV-7

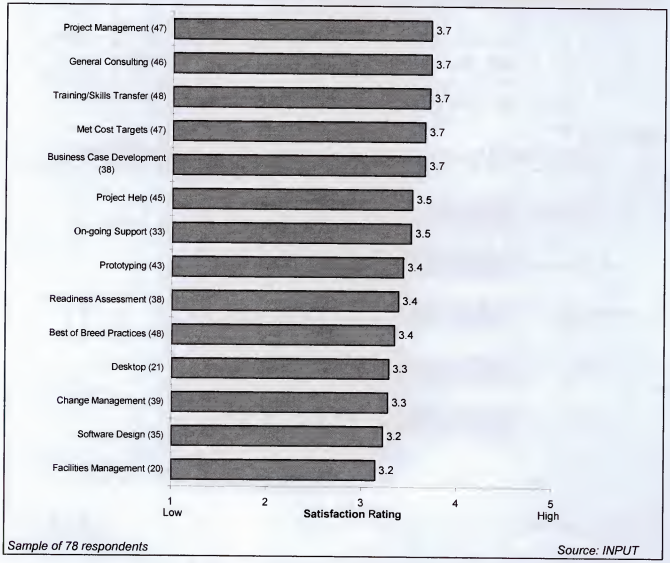
Service Vendor Performance Measures: Relatively High Satisfaction



Sample of 78 respondents *Source: INPUT*

Exhibit IV-8

Service Vendor Performance Measures: Areas of Lower Satisfaction



Sample of 78 respondents *Source: INPUT*

The highest rated characteristics are those related to getting the job done, while the characteristics that received the lower ratings tended to be those associated with some specific phase of the installation or operational process.

In general, areas related to ongoing support tend to show room for improvement, particularly those concerned with platform support such as desktop-related support and facilities management.

D
Satisfaction with Contract Types

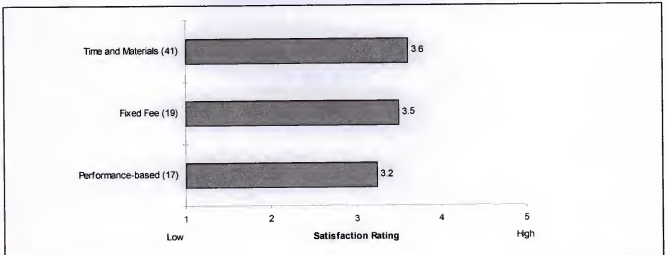
Respondents were asked which contract types they used for services vendors in connection with SAP implementations and to rate their level of satisfaction on a scale of 1-5. The results are shown in Exhibit IV-9. The numbers in ( ) refer to the number of respondents who rated the contract type.

The majority of contracts rated were of the time and materials type, with performance-based and fixed fee roughly equal in terms of the number of respondents. This chart is interesting in that the majority of respondents intending to implement R/3 cited a strong preference for fixed fee contracts for services vendors. Thus, one can infer that the services vendors have been largely unwilling to accept fixed fee contracts.

However, there is no apparent difference in satisfaction between users that adopted fixed fee pricing and those that contracted with their supplier on a time and materials basis. However, it is likely that organizations will increasingly insist on fixed price contracts for R/3 implementations and vendors should be prepared to offer this option in future.

Exhibit IV-9

Satisfaction with Contract Types



Sample of 78 respondents *Source: INPUT*

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V

Market Development

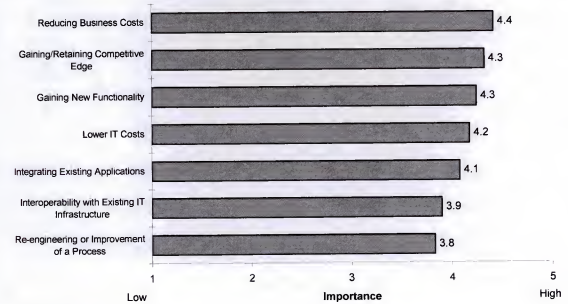
This chapter analyzes user requirements and purchasing intentions, together with the SAP buying process for both products and services.

A
User Requirements

Those respondents considering the implementation of R/3 were asked to rate several objectives relating to a possible SAP implementation. The results are summarized in Exhibits V-1 and V-2.

Exhibit V-1

Most Important Objectives Relating to SAP Implementation

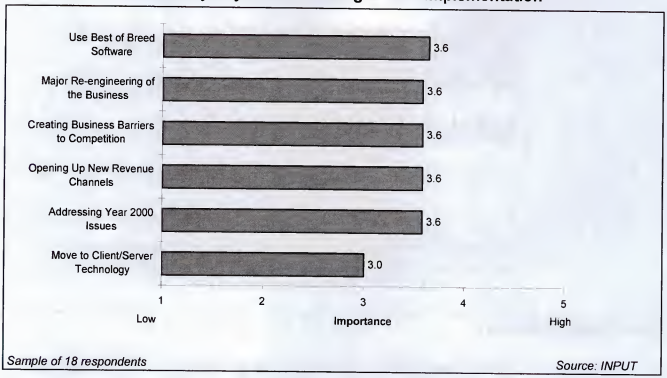


Sample of 18 respondents

Source: INPUT

Exhibit V-2

Secondary Objectives Relating to SAP Implementation



Sample of 18 respondents *Source: INPUT*

As with existing users of R/3, reducing business costs and gaining new functionality remain important objectives.

However, organizations now considering the purchase of R/3 attach greater significance to integrating R/3 with existing applications and platforms rather than replacing applications and platforms.

For example, organizations now considering the purchase of R/3 place a high emphasis on:

- Integrating existing applications
- Interoperability with existing IT infrastructure.

They also now place a low emphasis on:

- Moving to client/server technology
- Addressing Year 2000 problems.

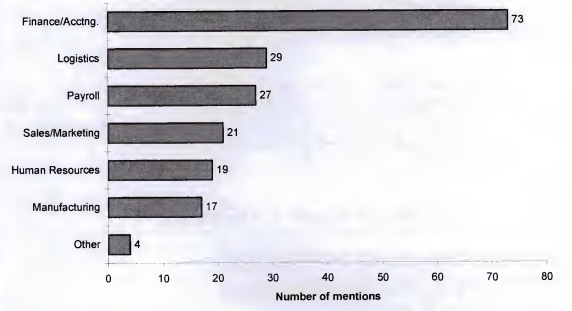
At the same time, they place an even greater emphasis on the need to reduce IT costs, so this become an area of focus for services vendors operating in the SAP marketplace.

B
Purchasing Intentions

Respondents were asked to name the most important modules that would be implemented in their forthcoming system. Multiple answers were allowed. The results are shown in Exhibit V-3.

Exhibit V-3

Most Important Modules to be Implemented



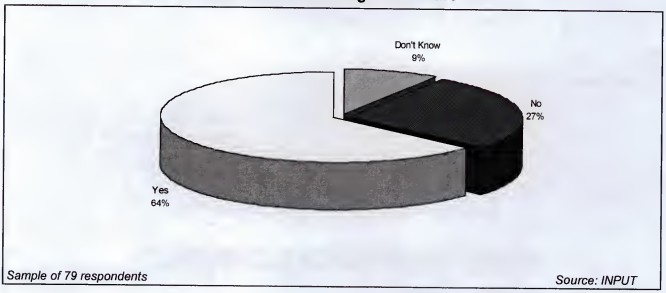
Sample of 79 respondents *Source: INPUT*

The finance/accounting application will be implemented by nearly three-quarters of the survey population. Other modules trailed significantly. The results are revealing in that most large enterprises already have mature accounting systems.

As shown in Exhibit V-4, about two-thirds of the 79 non-user respondents plan to use packaged application software such as enterprise application solutions from SAP or Baan in the implementation of their project and another 9% aren't sure. Only 27% plan a custom solution.

Exhibit V-4

Plans to Use Packaged Software

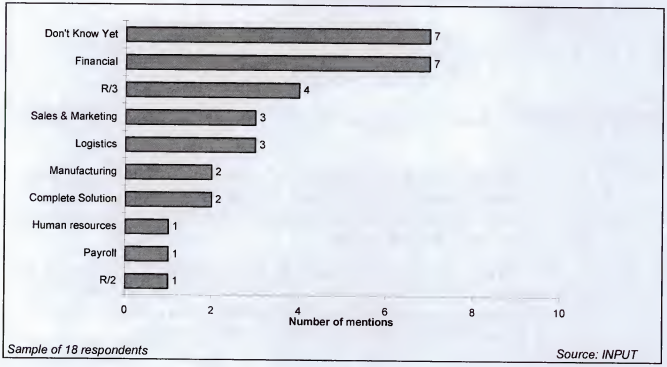


Sample of 79 respondents *Source: INPUT*

Respondents that were likely to implement R/3 were asked which modules they expected to install. The responses are tabulated in Exhibit V-5. Although the numbers are small, they correlate closely with the requirements of the overall non-user sample population as depicted in Exhibit V-3.

Exhibit V-5

Plans for SAP Modules and Versions

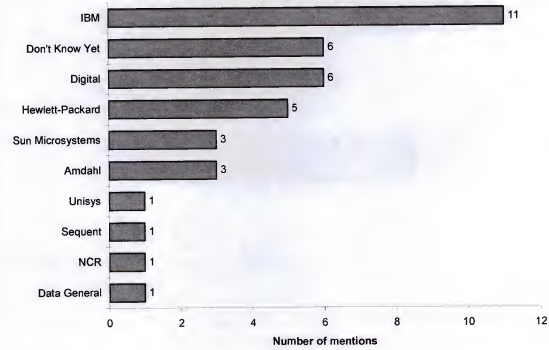


Sample of 18 respondents *Source: INPUT*

Respondents were also asked which system platforms are being considered for their SAP system. The results are presented in Exhibit V-6.

Exhibit V-6

SAP System Platforms Being Considered



Sample of 18 respondents *Source: INPUT*

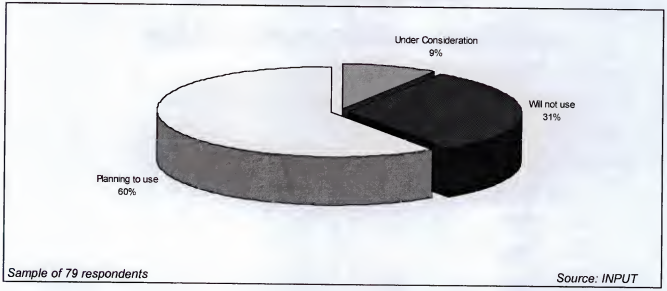
Since the interview subjects were Fortune 1000 class organizations, it is not surprising that the platform leaders are IBM, followed by Digital Equipment and Hewlett-Packard.

However, this profile of vendors is very different from the current SAP installed base where H-P has a 50% market share and IBM, in second place, only 20%. This suggests either that IBM will begin to make inroads into H-P's market share of SAP equipment platforms or that users will become more influenced by the strong relationship between SAP and H-P as they move further through the purchasing cycle. Overall it is likely that the power of IBM Global Services will assist IBM in increasing its market share in SAP platforms over the next few years.

Exhibit V-7 shows that a majority of users plan to use outside services in the development or deployment of their projects. Less than a third of the respondents will not use any outside services.

Exhibit V-7

Planned Use of Outside Services



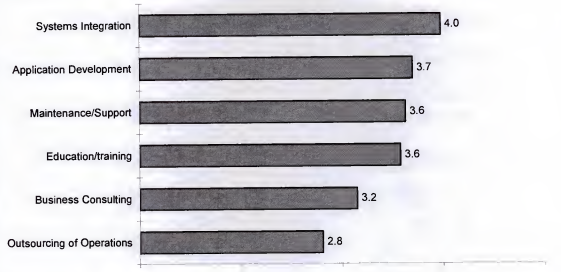
Sample of 79 respondents *Source: INPUT*

Accordingly, the SAP related marketplace will remain an important market for services vendors in the coming years.

The respondents that said they planned to use or were considering using outside services were asked to rate the importance of a list of services on a scale of 1-5, where '1' is unimportant and '5' is very important. The results are given in Exhibit V-8.

Exhibit V-8

Relative Importance of Services



Sample of 79 respondents *Source: INPUT*

Systems integration is the highest rated service and operations outsourcing the lowest, indicating a continuing emphasis on project activity rather than outsourcing.

As indicated earlier, there is a danger that organizations initially underestimate the degree of business change resulting from R/3 implementations and under-budget for user training and support. In addition, a greater level of business consulting than anticipated may be required if organizations are to derive maximum benefit from use of R/3.

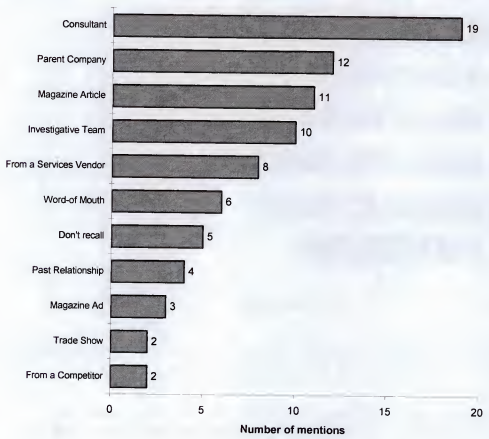
C
Purchasing Process

1. Solutions

Respondents from organizations already using R/3 were asked to identify where they had first heard about SAP. The most oft-mentioned source was from a consultant. This might typically be a Big 6 firm with whom the company had a relationship. Exhibit V-9 delineates the responses.

Exhibit V-9

Source of Original Information on SAP: Current Users of R/3



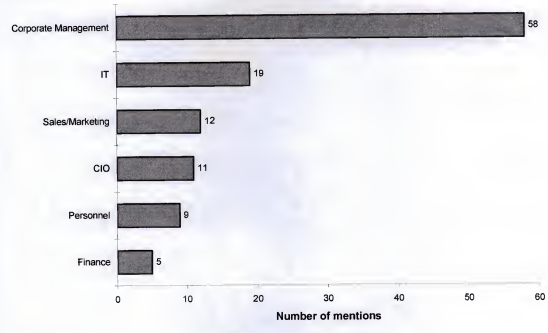
Sample of 78 respondents

Source: INPUT

Respondents were asked to identify the part of their organization most responsible for driving the decision to purchase SAP. As shown in Exhibit V-10, *corporate management* is the most important influence, with the *IT* department a distant second. This has clear implications for vendor marketing indicating a clear need to target sales outside the IT department.

Exhibit V-10

Personnel Driving Decision to Purchase SAP

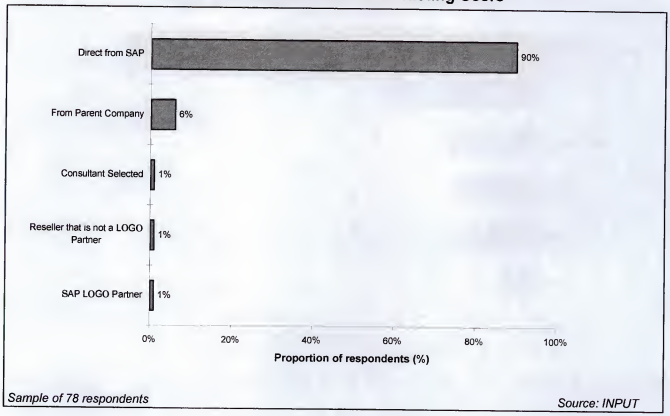


Sample of 78 respondents *Source: INPUT*

Exhibit V-11 lists the procurement channels used by the survey respondents.

Exhibit V-11

SAP Procurement Channels: Existing Users



Sample of 78 respondents

Source: INPUT

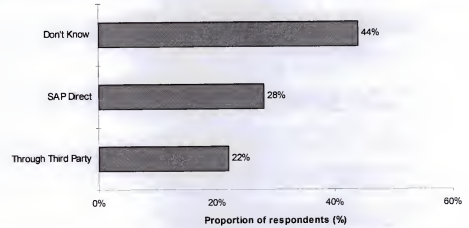
Most of the users in the sample bought their software directly from SAP, even though the impetus for the purchase might have come from a third party such as a consultant, developer or systems integrator.

This shows the importance for services vendors of maintaining a close relationship with SAP. In sales of SAP software to date, SAP itself has been the major source of referrals for services vendors. While users continue to buy predominantly through SAP, SAP will continue to exert a major influence on the sources of associated products and services.

Respondents from organizations likely to purchase R/3 in the future were asked to state from which channel they would most likely purchase SAP. The results are given in Exhibit V-12.

Exhibit V-12

Preferred SAP Procurement Channel: Prospective Buyers



Sample of 18 respondents *Source: INPUT*

The results are inconclusive. Those that chose to buy direct from SAP did so because they thought they might have more leverage over the vendor. However, most of the respondents indicated that the real issue is *support*, and that they would be most likely to buy from whichever vendor was perceived to offer the best technical support program.

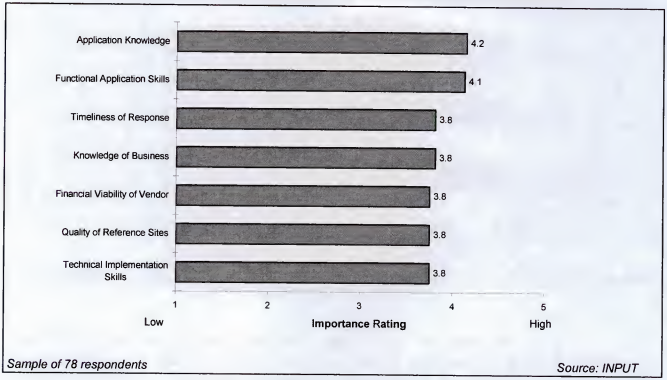
In addition, SAP's influence over the procurement channel may decrease as the company begins to market its products to smaller organizations than previously.

2. Services Vendors

Respondents were asked to rate various criteria for selection of services vendors on a scale of 1-5. The most important criteria are listed in Exhibit V-13 and the secondary criteria in Exhibit V-14.

Exhibit V-13

Most Important Selection Criteria: External Services Vendors

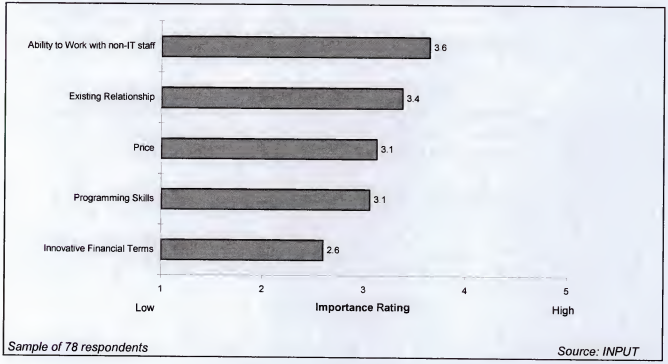


Sample of 78 respondents

Source: INPUT

Exhibit V-14

Secondary Selection Criteria: External Services Vendors



Sample of 78 respondents

Source: INPUT

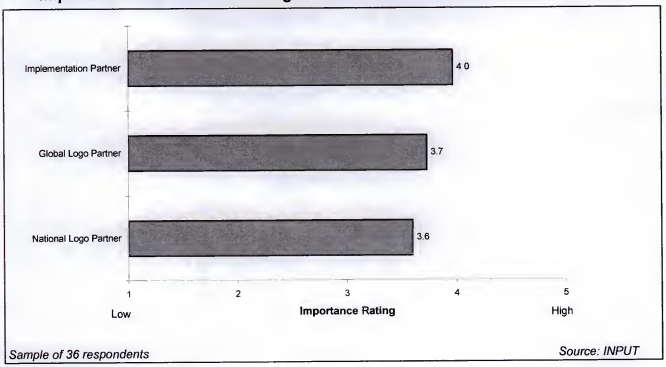
The most important criteria have to do with the application-related skills set offered by the vendor. Least important are the financial terms, programming skills and price. Users seem to be of two minds about the price issue. Although the cost of the SAP installation is cited as the biggest negative, the price paid to a services vendor appears to be a secondary consideration. One can conclude that once the decision to implement is made, cost becomes less important than achievement of a successful implementation.

In addition, users appear to attach much greater importance application skills than business knowledge or ability of vendor personnel to work with non-IT staff. This may explain some of the apparent under-achievement in deriving maximum business benefit from R/3.

Approximately 70% of the 54 respondents that used outside services vendors said that were aware of the SAP partner certification program. These respondents were asked to rate the importance of SAP's various certification categories on a scale of 1-5. The results are shown in Exhibit V-15.

Exhibit V-15

Importance of Certification Categories to Selection of SAP Services Provider



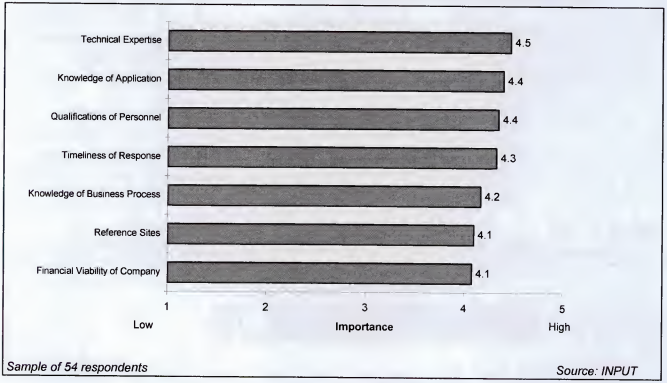
Sample of 36 respondents *Source: INPUT*

This again confirms buyers emphasis on implementation skills as the key requirement from their services partner.

Each of the respondents planning to hire an outside services vendor was also asked to rate a number of purchase criteria on a scale of 1-5. The results are shown in Exhibits V-16 and V-17.

Exhibit V-16

Most Important Criteria for Choosing an External Services Vendor

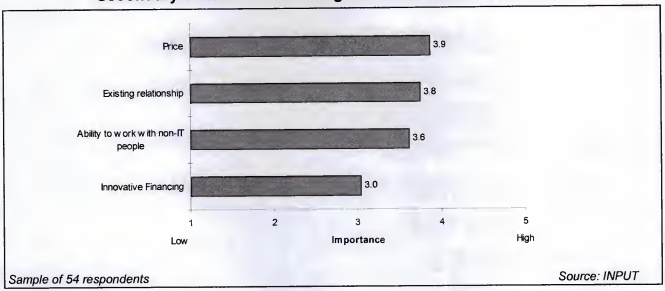


Sample of 54 respondents

Source: INPUT

Exhibit V-17

Secondary Criteria for Choosing an External Services Vendor



Sample of 54 respondents *Source: INPUT*

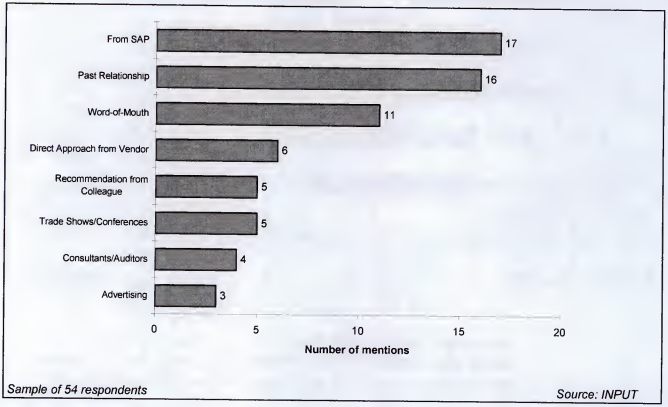
Criteria that relate to the expertise of the services vendor scored significantly higher than other criteria such as price, financial viability or innovative (e.g., performance- or milestone-based) financial terms.

However, not surprisingly, organizations about to purchase services rated price much more highly than organizations that had already undergone the implementation process.

The respondents who had used outside services vendors were asked how they first learned about the vendors that they eventually used. The results are summarized in Exhibit V-18. (The numbers add up to more than 54 because some respondents gave multiple answers.)

Exhibit V-18

How Services Vendors Were First Learned About



Sample of 54 respondents *Source: INPUT*

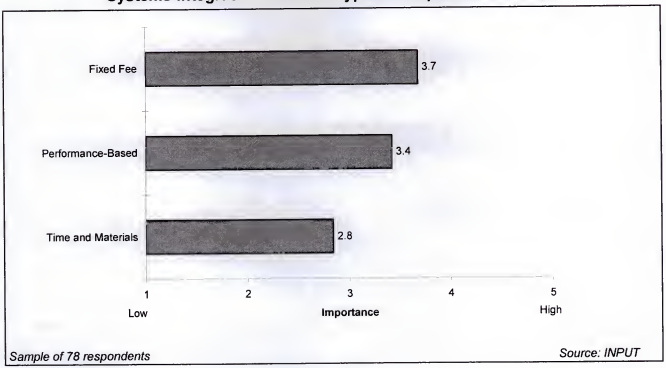
The responses indicate that SAP itself, past relationships and word-of-mouth are the leading reference sources.

D
Contractual Preferences

Respondents about to implement systems were asked to rate the relative importance of different types of system development and system integration services contracts on a 1-5 scale. The results are shown in Exhibits V-19 and V-20. In addition, the percentage of respondents rating each type a '4' or '5' is shown in Exhibits V-21 and V-22. Respondents show a preference for fixed fee contracts over performance-based and time and materials agreements for both development and integration. This is not surprising since most budgets are fixed and the fixed fee model is a better fit with most companies' budget processes.

Exhibit V-19

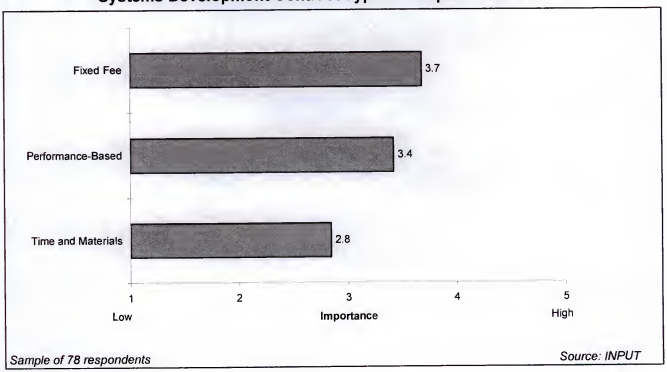
Systems Integration Contract Types: Prospect Preferences



Sample of 78 respondents *Source: INPUT*

Exhibit V-20

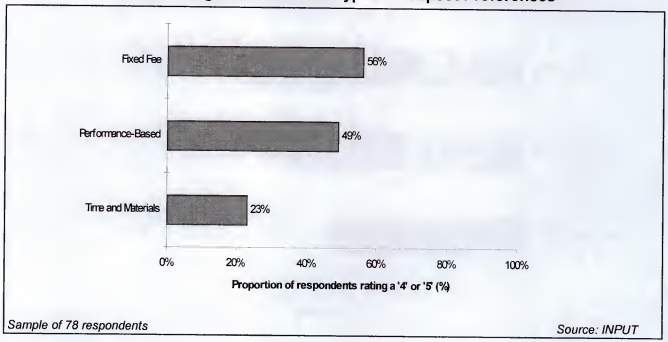
Systems Development Contract Types: Prospect Preferences



Sample of 78 respondents *Source: INPUT*

Exhibit V-21

System Integration Contract Types: Prospect Preferences

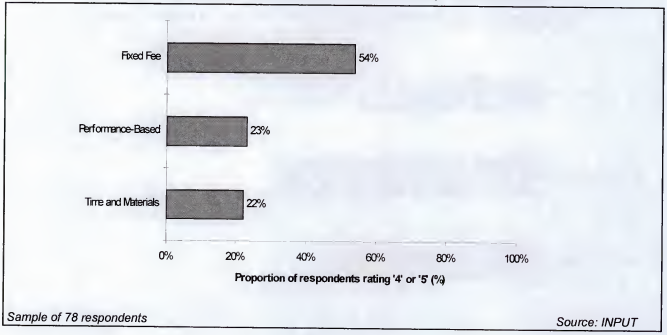


Sample of 78 respondents

Source: INPUT

Exhibit V-22

System Development Contract Types: Prospect Preferences



Sample of 78 respondents

Source: INPUT

VI

Industry and Competition

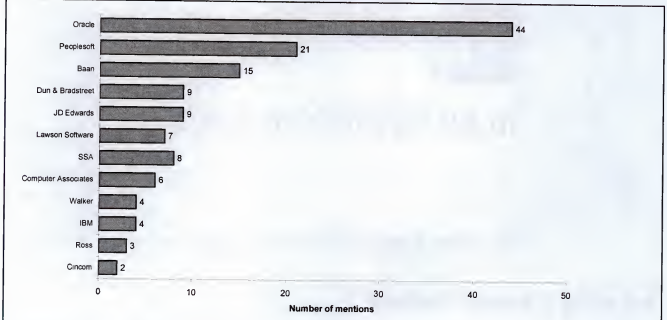
This chapter analyzes levels of vendor awareness in the user community.

A
Awareness of Solutions Vendors

Respondents already using R/3 were asked which other software vendors were considered before choosing SAP. The results, shown in Exhibit VI-1, show that more than half (56%) the sample considered Oracle. PeopleSoft was second in consideration with 27%, followed by Baan with 19%. Fourteen software vendors received two or more mentions. Thirteen other companies received one mention each.

Exhibit VI-1

Other Solutions Considered Before Choosing SAP

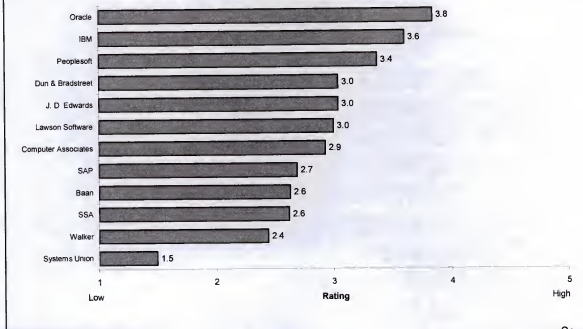


Sample of 78 respondents *Source: INPUT*

Respondents considering purchasing an enterprise application solution were asked to rate the suitability of each packaged software vendor with which they were familiar on a scale of 1-5. The ratings are given in Exhibit VI-2.

Exhibit VI-2

Software Vendor Suitability Ratings: Prospect Perception



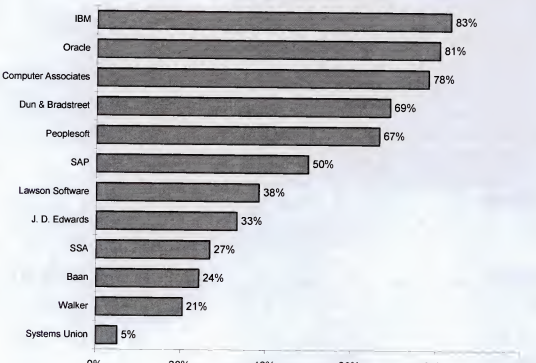
Sample of 78 respondents

Source: INPUT

Exhibit VI-3 shows the percentage of the 78 respondents rating each vendor and so is a measure of vendor awareness.

Exhibit VI-3

Vendor Awareness: Percentage of Prospects



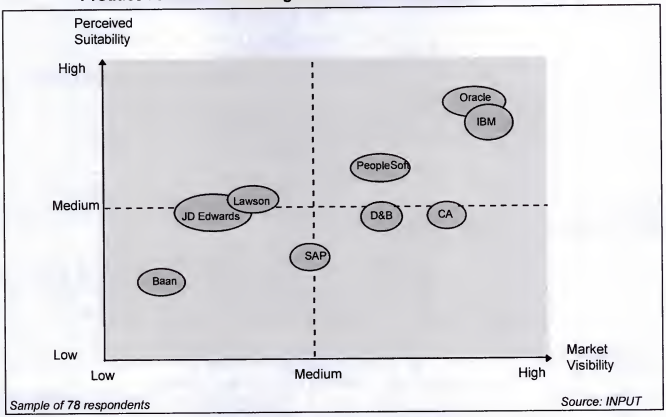
Sample of 78 respondents

Source: INPUT

Exhibits VI-2 and VI-3 are summarized in diagrammatic form in Exhibit VI-4.

Exhibit VI-4

Product Vendor Positioning: Awareness and Perceived Suitability



Sample of 78 respondents *Source: INPUT*

There is a reasonably close correlation between the most familiar names and the highest ratings. This is probably because prospects will tend to give low suitability ratings to vendors with which they are largely unfamiliar, rather than stating that they are not in a position to rate the vendor.

However, there are some minor exceptions to this correlation. Computer Associates ranked third in awareness, but was rated only seventh in terms of suitability; PeopleSoft was rated third in terms of suitability, but came in fifth on the awareness list. SAP was rated eighth in suitability, but was sixth in awareness.

In addition, some general impressions garnered from unsolicited comments made by enterprise application prospects are as follows:

- SAP is too expensive; Oracle gives the same functionality at less cost
- We are unlikely to change from a current vendor set
- SAP does not appear to permit the same degree of customization as its competitors
- SAP is oriented to Fortune 500 only.

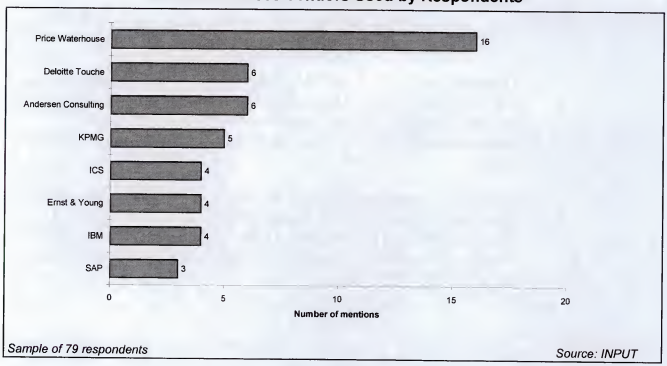
B

Awareness of Services Vendors

Over two-thirds (68%) or 54 of the respondents used the services of one or more outside services vendors for their SAP installations. Exhibit VI-5 contains a list of all services vendors used by the respondents which received three or more mentions.

Exhibit VI-5

External Services Vendors Used by Respondents



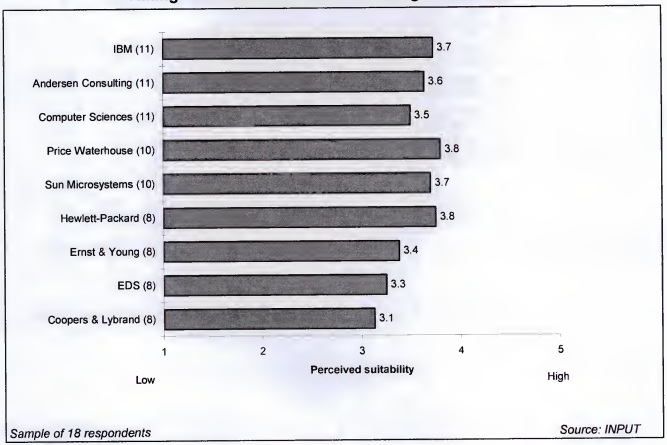
Sample of 79 respondents

Source: INPUT

Respondents intending to implement an enterprise application solution were presented with a list of services vendors, all of which offer SAP-based system development or system integration services. They were asked to rate these vendors suitability on a scale of 1-5. The results are shown in Exhibits VI-6 and VI-7. The numbers in ( ) indicate the number of respondents that gave a rating for a particular vendor. Again, the companies with the highest levels of recognition tended to receive the highest ratings.

Exhibit VI-6

Ratings of SAP Services Vendors: Higher Awareness

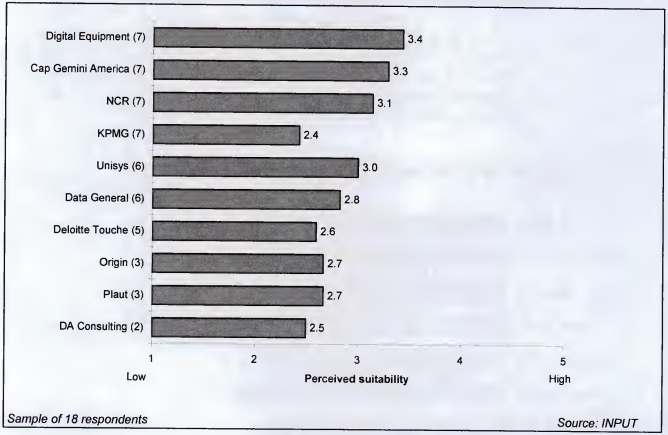


Sample of 18 respondents

Source: INPUT

Exhibit VI-7

Ratings of SAP Services Vendors: Lower Awareness



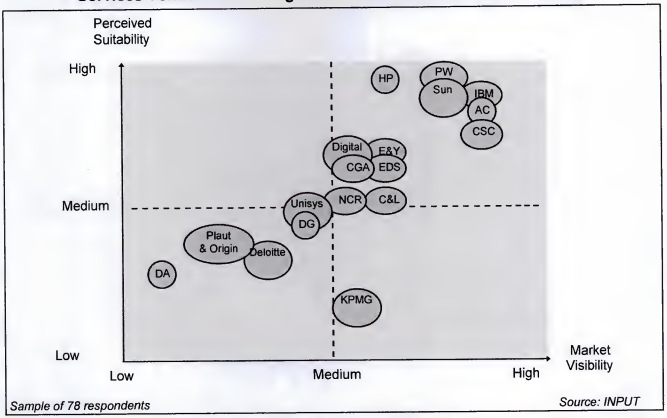
Sample of 18 respondents

Source: INPUT

Exhibits VI-6 and VI-7 are summarized in diagrammatic form in Exhibit VI-8.

Exhibit VI-8

Services Vendor Positioning: Awareness and Perceived Suitability



Sample of 78 respondents *Source: INPUT*

Respondents were asked if they were aware that SAP has a certification program for its partners. Only four respondents said that they were aware of such a program.

This indicates that certification is not a major selling point for vendors. However, like ISO9001 certification, SAP certification may be a hygiene factor necessary to ensure continued consideration as a SAP services vendor.

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Appendix

Questionnaires

Sap User Questionnaire

Section 0: Background

Name: _____

Title: _____

Company: _____

Address: _____

Address 2: _____

City: _____

State:/Province: _____

Zip/Postcode: _____

Phone: _____

Industry Sector:

❑	Discrete Mfg.	❑	Wholesale	❑	Federal Gov't
❑	Process Mfg.	❑	Banking/Finance	❑	State/Local Gov't
❑	Transportation	❑	Insurance	❑	Consumer/Home
❑	Utilities	❑	Medical	❑	Other Industry Specific
❑	Telecommunications	❑	Services	❑	Cross-Industry
❑	Retail	❑	Education	❑	

1. Are you familiar with the SAP software installed in your organization? ❑ Yes ❑ No

IF 'NO', TERMINATE INTERVIEW. IF 'YES' PROCEED TO NEXT QUESTION..

2. What is your role? ❑ IS/IT Manager ❑ Developer ❑ Line of Business Manager

3. Which of the following statements are true?

NOTE TO INTERVIEWER: ASK FOR VERSION # FOR R/2 AND R/3. IF RESPONDENT DOESN'T KNOW, LEAVE BLANK.)

Statement	Tick if "Yes"	Version #
R/2 is installed	❑	_____
R/3 is installed	❑	_____
We migrated from R/2 to R/3	❑	
Our SAP applications management is outsourced to a services vendor	❑	
Our SAP facility is managed by a facilities management company	❑	

4. Please indicate which modules you have installed, when they went into production and how many users each has.

Module	Tick All that apply	Date Installed (mm/yy)	No. users
Complete Solution	❑		
R/2	❑		
R/3	❑		
Financial	❑		
Logistics	❑		
Payroll	❑		
Human Resources	❑		
Manufacturing	❑		
Sales & Marketing	❑		
Other (state) _____	❑		

5. What is the primary server platform supporting your SAP software?
   Manufacturer _____ Model _____
   (Ex: IBM S/390, HP 9000, DEC 8400, Sun 2000)

6. What is the primary operating system supporting your SAP software? _____
   (Ex: MVS, UNIX, Windows NT)

7. What is the primary database management system used in conjunction with your SAP software?

   _____ (Ex: CICS, IMS, Oracle, Informix, Sybase, DB2)

8. What is the primary user desktop interface that is used in connection with your SAP software? _____
   (Ex: OSF/Motif, Windows 3.1, Windows 95, Windows NT, Macintosh)

9. On a scale of 1-5, 5 high, please rate the following characteristics of your SAP software. If you have more than one version, rate the latest one.

Characteristics	Rating (1-5)
Usability	
Flexibility	
Functionality	
Reporting	
Architecture	
Range of Modules	
Quality standards	
Platform Portability	
Price	
Overall	

10. On a scale of 1-5, 5 = high, please rate the importance of the following issues and your level of satisfaction with the way that SAP addresses these issues.

Issue	Importance Rating (1-5)	Satisfaction Rating (1-5)
Interoperability with your existing IT infrastructure		
Lower IT costs		
Move to client/server technology		
Use best of breed software		
Integrating existing applications		
Gaining new functionality		
Addressing Year 2000 Problems		
Gaining/retaining competitive edge		
Reducing business costs		
Opening up new revenue channels		
Creating business barriers to competition		
Major re-engineering of the business		
Re-engineering or improvement of a process		
Other (state) _____		
Other (state) _____		

11. How did you originally hear about SAP?

Module	
Magazine Ad	❑
Magazine article	❑
From a competitor	❑
From a consultant	❑
From a services vendor	❑
Can't remember	❑
Other (state) _____	❑

12. Is your organization part of a group that uses SAP products? q Yes q No

IF "YES." GO TO QUESTION 13. OTHERWISE PROCEED TO NEXT QUESTION.

12a: If "No", what is the relationship between your organization and the using group(s)?

Module	
Parent	❑
IT Support	❑
Other (state) _____	❑

13. Which organizations within your company drove the decisions that resulted in purchase of SAP software?

Organization	Tick All that Apply
Corporate Management	❑
CIO	❑
IT	❑
Manufacturing	❑
Finance	❑
Sales/Marketing	❑
Personnel	❑
Other (state) _____	❑
Other (state) _____	❑

14. What channel did you buy your SAP software from?

Channel	Tick 1
Direct from SAP	❑
From an SAP Logo Partner	❑
From a reseller that is not a Logo partner	❑
Consultant Selected it	❑
Other (state) _____	❑

15. What other companies' software did you consider before choosing SAP?

Vendor	Tick all that apply
Oracle	❑
JD Edwards	❑
IBM	❑
Computer Associates	❑
Dun & Bradstreet	❑
Baan	❑
SSA	❑
PeopleSoft	❑
Walker	❑
Systems Union	❑
Lawson Software	❑
Cap Gemini America	❑
Custom Solutions Vendor	❑
Other (state) _____	❑

16. The following is a list of expense items you may have encountered in your SAP installation planning to use. Please rate the importance to you of each one on a scale of 1 to 5, where 5 is highest. Then indicate how much of an expense you anticipate each item will be on the following scale: 0=None; 1=minor expense item; 2=moderate expense item; 3=major expense item.

Expense Item	Importance Rating (1-5)	Expense rating (0-3)
Software License		
Server hardware		
Desktop Hardware and networks		
Business process reengineering services		
Systems configuration services		
System tailoring/enhancement services		
Education & Training		
Consulting from SAP		
Consulting from other sources		
Software implementation by SAP Partners		
Other (state) _____		
Other (state) _____		
Other (state) _____		

17. How many equivalent full-time people are or were involved in implementing your SAP installation from your in-house staff? _____ From your outside services vendors? _____

18. From the time the business case was made, how long did/will it take for your SAP implementation to be fully operational? _____ months.

19a. How did your implementation budget compare to plan? Indicate as a percentage where 100% means exactly on plan. _____%

19b. How did the elapsed time from start of implementation to completion compare to plan? Indicate as a percentage where 100% means exactly on plan. _____%

20a. What do you consider to be SAP's three greatest strengths?

_____

_____

20b. What do you consider to be SAP's three greatest weaknesses?

_____

_____

21. Did you use the services of an outside vendor to help with your SAP implementation?
❑ Yes ❑ No

IF "NO", SKIP TO QUESTION 39. OTHERWISE PROCEED TO THE NEXT QUESTION.

21a. What are/were the names of the vendors?

_____

_____

22. On a scale of 1-5, 5 high, please rate the following reasons for selecting your outside services vendors.

Characteristics	Rating (1-5)
Technical implementation skills	
Functional application skills	
Programming Skills	
Knowledge of business process	
Quality of reference sites	
Price	
Financial viability of vendor	
Existing relationship	
Timeliness of response	
Application Knowledge	
Ability to work with non-IT staff	
Innovative financial terms such as risk-sharing	
Other (state) _____	

23. Were you aware of the SAP Consultants Certification Program before selecting your services vendors? q Yes q No

IF "NO," SKIP TO QUESTION 25. OTHERWISE PROCEED TO THE NEXT QUESTION.

24. On a scale of 1-5, 5 high, how important were the following three SAP certification categories to your selection of services providers?

Category	Rating (1-5)
Global Logo Partner	
National Logo Partner	
Implementation Partner	
Other (state) _____	

25. How did you first learn of your services vendors?

Vendor	Tick all that apply
From SAP	❑
Word of mouth	❑
Recommendation from colleagues	❑
Media/advertising	❑
Past relationship	❑
Directly approached by services company	❑
Trade shows/conferences	❑
Other (state) _____	❑

26. The following is a list of services contract types. Tell us which ones you used, and, on a scale of 1-5, 5 high, how you would rate your satisfaction with each type that you used. If not used, rate as 0.

Contract Type	Rating (1-5)
Fixed Fee	
Time & Materials	
Performance-based	
Other (state) _____	

27. The following is a list of items pertaining to outside services vendors. On a scale of 1-5, 5 high, please rate each as it pertains to your services vendors. If an item doesn't apply to your situation, rate it 0.

Service	Rating (1-5)
Business Case Development	
Business process reengineering	
General consulting	
Change management	
Met cost targets	
Met deadlines	
Project management	
Software design	
Prototyping	
Implementation	
Implementation planning	
Training/skills transfer	
Project Help	
Desktop/User interface Implementation	
Transitioning from pilot to operational status	
Knowledge of "best of breed" practices	
Facilities management	
On-going support	
Other (state) _____	

28. The following is a list of items relating to implementation technologies. Please indicate which ones were used by your services vendors, and on a scale of 1-5, 5 high, please rate your level of satisfaction with each one that you are familiar with.

Contract Type	Used by Vendor	Rating (1-5)
Formal Implementation methodology	❑	
Proprietary implementation tools	❑	
Business modeling tools	❑	
Industry-specific templates	❑	
SAP's Business Engineering Workbench	❑	

29. Which of the following implementation approaches did you use in your SAP implementation?

Approach	Tick all that apply
Everything installed at once	❑
Phased in module by module	❑
Pilot testing program	❑
ASAP (Accelerated SAP) program	❑
Other (state) _____ _	❑

30. Looking back at your SAP installation, which elements were you particularly satisfied with?

_____

_____

31. Looking back at your SAP installation, which elements were you particularly dissatisfied with?

_____

_____

32. In your SAP implementation process, were there any requirements that you had which were not met by the services vendors assisting you? q Yes q No

IF "NO," GOT TO QUESTION 35. OTHERWISE PROCEED TO THE NEXT QUESTION.

33. What were they?

_____

_____

34. Do you believe these requirements could have been met by other services vendors? ❑ Yes ❑ No

35a. Is your company capable of operating your SAP system without material assistance from an outside services vendor? ❑ Yes ❑ No

35b. In which areas of your SAP installation, if any, do you think your company could use continued help from an outside services vendor?

_____

_____

36a. Is your SAP system fully operational? ❑ Yes ❑ No

IF "NO," GO TO QUESTION 38. OTHERWISE PROCEED TO NEXT QUESTION.

36b. Since it became operational, have you experienced problems with the system? ❑ Yes ❑ No

37. The following is a list of problems. Please indicate which ones you have encountered since your SAP system became operational.

Problem	Tick all that apply
Users not adequately trained	❑
Users overworked	❑
System reliability	❑
System Availability	❑
Interoperability with other systems	❑
System performance	❑
Poor architecture	❑
Underpowered hardware	❑
Other (state) _____	❑

38. The following is a list of five things that you might invest in to improve the usage of your SAP system. Assume you have $100 to invest. How would you allocate those dollars to each of these five items.

Item	$ Invest
Technical training	
More hardware	
More software	
End User training	
Tech support facilities	
Total must add up to	$100

39. This completes the formal part of this interview. Are there any comments that you would like to make at this time?

_____

_____

SAP Non User QUESTIONNAIRE

Section 0: Background

Name: _____

Title: _____

Company: _____

Address: _____

Address 2: _____

City: _____

State:/Province: _____

Zip/Postcode: _____

Phone: _____

Industry Sector:

❑	Discrete Mfg.	❑	Wholesale	❑	Federal Gov't
❑	Process Mfg.	❑	Banking/Finance	❑	State/Local Gov't
❑	Transportation	❑	Insurance	❑	Consumer/Home
❑	Utilities	❑	Medical	❑	Other Industry Specific
❑	Telecommunications	❑	Services	❑	Cross-Industry
❑	Retail	❑	Education	❑	

1. Does your organization plan to undertake one or more large scale system development or systems integration projects relating to integrated business solutions or applications within the next year? ❑ Yes ❑ No

IF "NO", TERMINATE INTERVIEW. IF 'YES' PROCEED TO NEXT QUESTION..

2. What is your role? q IS/IT Manager ❑ Developer ❑ Line of Business Manager

3. What are the three most important applications (solutions) that will be implemented in this system?

Application	Tick up to 3
Financial/Accounting	❑
Logistics	❑
Payroll	❑
Human Resources	❑
Manufacturing	❑
Sales & Marketing	❑
Other (state) _____	❑

4. Do you plan to use any outside services in connection with this system?
❑ Yes ❑ No ❑ Under consideration

IF "NO" SKIP TO QUESTION 7, OTHERWISE PROCEED TO NEXT QUESTION.

5. The following is a list of services you might be planning to use. Please rate the importance to you of each one on a scale of 1 to 5, where 5 is highest. Then indicate how much of an expense you anticipate each service will be on the following scale: 0=None; 1=minor expense item; 2=moderate expense item; 3=major expense item.

Service	Rating (1-5)	Expense rating
Systems Integration		
Application Development		
Outsourcing of operations		
Education/Training		
Business Consulting		
Maintenance and Support		
Other (state) _____		

6. In choosing an outside services vendor, please rate the following criteria on a scale of 1-5, 5=high.

Criteria	Rating (1-5)
Reference Sites	
Price	
Financial viability of Company	
Existing relationship	
Technical expertise	
Qualifications of Personnel	
Timeliness of response	
Knowledge of Application	
Knowledge of Business Process	
Ability to work with non-IT people	
Innovative financing (e.g., shared risk)	
Other (state) _____	

7. Please rate the importance of the following types of system development and system integration services contracts on a scale of 1-5, 5 = high.

Contract Type	System Development Rating (1-5)	Systems Integration Rating (1-5)
Fixed Fee		
Time & Materials		
Performance-based		
Other (state) _____		

8. Do you plan to use any packaged application software such as SAP, Oracle or Baan for your project? ❑ Yes ❑ No

9. The following is a list of business software vendors. Please rate each vendor on a scale of 1-5 where 5 is highest. If you are not familiar with the company, rate it a 0.

INTERVIEWER NOTE: THIS QUESTION MUST BE ANSWERED SINCE THE REST OF THE QUESTIONNAIRE DEPENDS ON IT.

Vendor	Rating (1-5)
Oracle	
JD Edwards	
IBM	
Computer Associates	
Dun & Bradstreet	
Baan	
SSA	
Peoplesoft	
SAP	
Walker	
Systems Union	
Lawson Software	
Other (state) _____	

IF SAP RECEIVED A RATING OF 3, 4 OR 5 IN QUESTION 9, THEN PROCEED TO QUESTION 11. OTHERWISE GO TO QUESTION 17.

10. Since you might be considering SAP, the remaining questions deal with SAP implementation.

Please indicate whether you would plan to obtain a complete solution or any of the following modules.

INTERVIEWER NOTE: ASK FOR VERSION # FOR R/2 AND R/3. IF RESPONDENT DOESN'T KNOW, LEAVE BLANK.

Item	Tick All that apply	Version #
Complete Solution	❑	
R/2	❑	_____
R/3	❑	_____
Financial	❑	
Logistics	❑	
Payroll	❑	
Human Resources	❑	
Manufacturing	❑	
Sales & Marketing	❑	
*Other (state) _____	❑	

11. The following is a list of SAP system platform vendors. Please indicate which ones you are considering for your project.

Platform Vendor	
Amdahl	❑
Data General	❑
Digital Equipment	❑
Hewlett-Packard	❑
Hitachi Data Systems	❑
IBM	❑
NCR	❑
Siemens Pyramid	❑
Sequent Computer	❑
Sun Microsystems	❑
Stratus	❑
Unisys	❑
Other (state) _____	❑
Don't Know	❑

12. The following is a list of issues relating to your SAP implementation. Please rank each of them on a scale of 1-5, 5 high. (Interviewer, rotate list order)

Issue	Rating (1-5)
Interoperability with your existing IT infrastructure	
Lower IT costs	
Move to client/server technology	
Use best of breed software	
Integrating existing applications	
Gaining new functionality	
Addressing year 2000 issues	
Gaining/retaining competitive edge	
Reducing business costs	
Opening up new revenue channels	
Creating business barriers to competition	
Major re-engineering of the business	
Re-engineering or improvement of a process	
Other (state) _____	
Other (state) _____	

13. From which channel would you be most likely to buy SAP software?
❑ SAP Direct ❑ Through a third party

13a. Explain your choice

_____

_____

14. Please rate the following services vendors in terms of their capabilities for system development or system integration services relative to SAP. Rate on a scale of 1-5, 5=high. If you are not familiar with the vendor's capabilities, rate as a 0. (Interviewer, rotate list order)

Vendor	Rating (1-5)
Andersen Consulting	
Cap Gemini America (CGA)	
Coopers & Lybrand	
CSC	
Data General	
Digital Equipment	
DA Consulting	
EDS	
Ernst & Young	
Hewlett-Packard	
IBM	
NCR	
KPMG	
Plaut _____	
Origin	
Price Waterhouse	
Sun Microsystems	
Unisys	
Deloitte Touche	
Other (state) _____	

15. Are you aware that SAP has a certification program for its services partners? ❑ Yes ❑ No

IF "NO," SKIP TO QUESTION 17. OTHERWISE PROCEED TO NEXT QUESTION.

16. On a scale of 1-5, 5 high, how important to you are the following SAP partner certification categories?

Category	Rating (1-5)
Global Logo Partner	
National Logo Partner	
Implementation Partner	
Other (state) _____	

17. This completes the formal part of this interview. Are there any comments that you would like to make at this time?

_____

_____

(Blank)