IT Spending Forecast Update & Optimizing ERP Support Staffing Ratios

Frank Scavo, CFPIM, CIRM

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About Computer Economics

- IT research firm, founded 1979
- Independent source of metrics and advisory services for IT financial and strategic management:
  - IT spending and staffing benchmarks
  - IT salary data
  - Technology adoption trends
  - ROI and TCO studies
  - Economic impact of IT security threats
  - Computer hardware valuations
- IT spending and staffing survey now in its 20th year
About Strativa

- Sister management consulting firm, founded in 2000
- Provides independent advice for business and technology decisions
- Includes a major consulting practice in selecting, implementing, and optimizing enterprise systems
- Process improvement around the use of systems
SaaS: plan to get out before you get in

A question about software licensing contracts on Ray Wang's blog, prompted me to think about issues involving the use of software-as-a-service (SaaS) for mission-critical applications. Specifically, the issue of vendor lock-in.

If you thought vendor lock-in was a problem with traditional on-premise ERP software, think about the issue when it comes to SaaS. Under a perpetual license agreement for on-premise software, you always have the option of going off maintenance but continuing to run the software, and perhaps maintaining it yourself.

But with SaaS, there is no such thing as going off maintenance. If you stop paying, access to your mission-critical system gets cut off.

Therefore, I think it is important for buyers to think about what will happen if and when they decide to migrate from their SaaS provider. Specifically, there are two things I believe that buyers should ensure are in their license agreements:

- First, if the SaaS provider offers an on-premise version (e.g. Oracle On-Demand), ensure that there are terms and conditions that allow you to transition to an on-premise version. This covers cases where you want to continue to use the software but are no longer satisfied with the hosting arrangement.

- Second, if the SaaS providers does not offer an on-premise deployment option (e.g. Salesforce.com), be sure the provider gives you the ability to extract all master file and transactional data to an open format (e.g. XML). The ability should be repeatable—not a one-time right—so that you can develop migration programs to facilitate conversion to a new SaaS or on-premise solution.

Software-as-a-Service is becoming more and more accepted as a deployment option for enterprise systems. But if the application is truly mission-critical, be sure you have an escape plan in advance.

Update, Dec. 28. I just came across this blog post by the folks at Zoho, which competes at one level with Salesforce.com for CRM customers.
Current recession began in December, 2007. If it continues through much of 2009, it will be the longest recession on record since the Great Depression.

Insights into the likely impact on IT spending can be gained by looking at how IT spending responded during previous recessions.

Computer Economics annual surveys conducted since 1990.
In Terms of IT Equipment and Software, 2008 Recession More Like 1990 than 2001

- 2001 recession was led by tech sector—hence a much sharper and longer fall off in IT investment, in contrast to 1991 recession, which was led by financial sector.
- Over-investment in 1990s for Y2K and Internet boom led to sharp decline in 2001. Current recession is unlikely to be as severe on IT investments.
• Recessions are marked by less than half of organizations increasing their IT operational budgets.
• Early results from our survey now underway show continued weakening in this metric.
In 2007 and 2008, IT organizations were already moderating their IT operational spending in anticipation of current recession.

IT organizations have been generally conservative in their spending in the 1990s, which will likely make more drastic cuts less likely.
Median IT Operational Budget Growth Falling Sharply

- Our October 2008 survey showed median IT operational budgets for 2009 flat.
- Early returns from our current survey confirm this view, though more organizations are now cutting budgets in 2009 than increasing them.
IT Capital Spending Taking Bigger Hit Than Operational Budgets

- IT capital spending (big ticket items) is being cut more aggressively than operational spending
- Early results from our current survey shows median 2009 IT capital spending growth actually negative compared to 2008.
IP equipment and software investment:
- Expect a modest increase in IP equipment and software investment in 2010 in the range of 5% to 10%

IT capital budgets:
- Expect median annual growth in IT capital budgets in 2010 to rebound to between 4% and 5%, roughly at the level of growth seen in 2006 and 2007.
- Rebound in capital spending will be further aided by low interest rates and availability of credit to financially sound organizations

IT operational budgets:
- If the pattern after the 1990 and 2001 recessions holds, we expect between 60% and 65% of IT organizations will increase IT budgets in 2010
- Based on the pattern shown after the 2001 recession, we expect modest IT operational budget growth of 2% to 3% in 2010, at the median

IT spending as percentage of revenue
- Conservative IT spending going into the current recession points to a recovery in IT spending in 2010.
- If the pattern of recovery after the 2001 recession repeats itself, we would anticipate median IT operational spending to reach 1.8% in 2010 and possibly 2.0% in 2011
Questions?

Before we go on....
ERP systems are big ticket capital expenditures and a significant part of ongoing support costs, making them a big target in the current economic climate.

- Enterprise software vendors under financial pressure...
  - *SAP* reports decline in earnings. *Under major expense reduction program with some layoffs*
  - *Layoffs at Oracle, Infor, Sage, Epicor, and others*

- Dissatisfaction with vendor software maintenance programs
  - *SAP* raises maintenance fees, prompting major backlash from customers
  - *SAP* bungles support for *Business Objects*
  - *Oracle* admits its maintenance fees are nearly all profit
  - *Third party support options (e.g. Rimini Street)* become more attractive

- It is in everyone’s best interest to lower the TCO of ERP systems
ERP Total Cost of Ownership

One-Time Costs
- Software License Fees
- External Implementation Costs
- Internal Implementation Costs

Recurring Costs
- Recurring Costs
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Recurring Costs
- Software Maintenance Fees
- Ongoing Support Costs

Optimizing the recurring costs, over the long run, will have a much greater impact on TCO than focusing on the one-time costs.

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• Statistics from annual Computer Economics *IT Spending, Staffing, and Technology Trends* survey

• Nearly half of our respondents report that the TCO of ERP is greater than originally budgeted

Source: Computer Economics, 2007
Managing IT Costs Is Largely a Matter of Managing Personnel Costs

- Nearly half of the typical IT budget goes toward personnel-related costs (salaries, benefits, recruiting, and training)

Typical IT Budget Categories: Percent of Total

- Personnel: 46%
- Hardware: 18%
- Networking: 12%
- Application Software: 11%
- All Else: 13%

Source: Computer Economics, 2008
Managing ERP TCO Is Largely a Matter of Managing Support Staffing

Recruiring Costs of ERP

- ERP Support Personnel Cost: 73%
- ERP Maintenance Fees: 18%
- Hdw/OS Expense: 9%

Source: Computer Economics, 2008

- The ongoing support costs of a major application such as ERP is even more heavily weighted toward personnel, as the IT infrastructure costs are fixed.
- While initial license fees and consulting services to implement the system are one-time investments, the cost of support personnel recurs year after year.
- Hardware and software maintenance fees, though also recurring costs, are less than one-third of the total cost of ongoing support.
Over 200 respondents in Q1 2008. Trimmed to 109 ERP user organizations after very small organizations, consultants, software vendors, and invalid responses were eliminated.

Data collected for each respondent: number of users supported, number of support staff, type of software and extent of functionality, age of implementation, and key deployment characteristics.

Also solicited the breakdown of ERP support headcount in terms of application programmers, business analysts, project managers, database administrators, help desk support, systems programmers, end-user reporting specialists, ERP user administrators, training/documentation specialists, and others.

All staffing ratios normalized by the number of users.

Identified factors that affect the level of support staffing required, which lead to recommendations for optimizing support levels.
The 109 survey respondents come from a wide variety of organizations, from those with just 10 ERP users to a company with 45,000.

Most popular ERP system among our survey participants is SAP (21 respondents), followed by Oracle's E-Business Suite (18).

The manufacturing sector comprises the largest part (33%) of the sample, with healthcare (14%) in second place.

Most of the respondents (70%) are from the U.S. or Canada. Europe accounts for another 14% of the survey participants.
Ratio of ERP Users to Support Staff: All Size Installations

- Higher is better: the higher the ratio, the more productive the support staff is (each staff member supports a larger number of users)
- Wide range of values implies that there must be factors that influence the support staff requirements
Definitions

- **Users:** refers only to "named users" (individuals who have a username and password for the system), not "concurrent users" (the maximum number of users logged into the system at one time)

- **Support personnel:**
  - All job functions needed to support ERP: application programmers, business analysts, project managers, database administrators, help desk support, systems programmers, end-user reporting specialists, ERP user administrators, training/documentation specialists, and others
  - Includes employees, temps, or contractors, regardless of whether they report into the IT organization or into a user organization
  - E.g. in some companies, end-user reporting specialists are part of the IT group, but in others they are assigned to user departments
  - Goal: be able to compare respondents with one another regardless of organizational differences
Eight Major Findings

1. Support Staff Are More Productive in Larger Installations
2. Scope of Functionality Has Little Effect on Support Requirements
3. SAP and Oracle Require More Support Staff than Tier II and Tier III Systems
4. Code Modifications Increase Support Requirements
5. Limiting the Number of ERP Versions Is a Best Practice
6. Consolidate ERP Instances to Optimize Productivity
7. Newer ERP Installations Require Larger Support Staff
8. ERP Support Staffing Allocations Are Relatively Consistent
#1: Support Staff Are More Productive in Larger Installations

- The size of the ERP installation in terms of number of users--is a primary driver of the ERP support staffing ratio.
- At the median, systems with 500+ users enjoy a 60% improvement in support staff productivity over systems with 200-500 users.
- Corollary: if an organization is maintaining multiple ERP systems, it will realize support staff efficiencies by standardizing on a single system and consolidating the user population.
#2. Scope of Functionality Has Little Effect on Support Requirements

- Functional areas: accounting, human resource management, sales and customer order management, operations management, and other.

- Conclusion: The scope of functionality has no effect on the ERP staffing ratio. In determining support staffing levels, extent of functionality is less important than number of users.

- Systems with multiple functions tend to have a greater number of users, and the economies of scale from more users is most likely offsetting the support requirements from the additional functionality.
• There are significant differences between SAP/Oracle and “All Others.” At the median, the staffing ratio is about 30%-50% better for the smaller systems.

• Confirms the common perception that smaller systems are generally easier to support than SAP and Oracle's premier products.

• Because of limited sample sizes, do not read too much into the differences between SAP and Oracle.
#4. Code Modifications Increase Support Requirements

- Limiting mods improves the support ratio by about 30% at the median.
- Modifications consume additional support resources to design, program, test, and maintain the modified code.
- Modifications limit ability to upgrade to future versions and releases. If an organization with a highly modified ERP systems does adopt a normal upgrade cycle, its support requirements would likely skyrocket.
#5. Limiting the Number of ERP Versions Is a Best Practice

Respondents by Number of ERP Versions in Production

- One Version, 74%
- Two or More Versions, 26%

Source: Computer Economics, 2008

Ratio of ERP Users to Support Staff: By Number of ERP Versions

- 25th Percentile
- Median
- 75th Percentile

Note: Respondents with 200+ users only
Source: Computer Economics, 2008

- Version: an edition of a particular software package
- Single version organizations enjoy a 40% improvement in ERP support staff productivity at the median
• **Instance**: a single copy of the software running on a single set of hardware (whether a single physical server or group of servers).

• Some organizations are forced to run multiple instances of Tier II or III systems to support multiple business units, due to functional limitations of those packages.

• Organizations running a single ERP instance enjoy a 20% improvement in ERP support staff productivity at the median.
#7. Newer ERP Installations Require Larger Support Staff

- ERP support personnel are somewhat less productive in organizations with ERP systems that are installed more recently.
- It may be that organizations with older systems enjoy the effect of the learning curve--that users, as well as the ERP support staff, are highly familiar with the system, thereby reducing support requirements.
- It may also be that younger systems have a higher rate of change--upgrades, bug fixes, and rollouts of new functionality are taking place more frequently than with older, more stable systems.

Source: Computer Economics, 2008

Figure 18

Figure 18: Respondents by Age of ERP System

Figure 19: Ratio of ERP Users to Support Staff: By Age of Installation

Note: Respondents with 200+ users only

Source: Computer Economics, 2008
#8. ERP Support Staffing Allocations Are Relatively Consistent

- Percentages shown are relatively consistent across organizations of various sizes, indicating that these metrics are a good guideline for allocating and planning for ERP support personnel.

- Take organization uniqueness into consideration. E.g. a company with major data warehousing requirements should allocate a higher number of personnel to the database administration and end-user reporting categories.
Optimizing ERP support costs is best addressed NOT by cutting salaries or hourly consulting rates (e.g. offshoring).

It is by optimizing the factors that drive requirements for support personnel.

- Consolidate ERP systems for multiple business units into a single system to achieve economies of scale
- Do not implement a larger ERP system when a smaller one will do
- Standardize on a single ERP version
- Run a single ERP instance if at all possible
- Limit program code modifications as much as possible
- Rationalize deviations from standard allocations job functions
1. **ERP Support Staffing Ratios**: a free copy of the special report, which this presentation is based on

2. **IT Spending and Staffing Study**: free copy of the Executive Summary (Chapter 1)

3. Sign up for the **Enterprise System Spectator** at [http://fscavo.blogspot.com](http://fscavo.blogspot.com) (free)

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