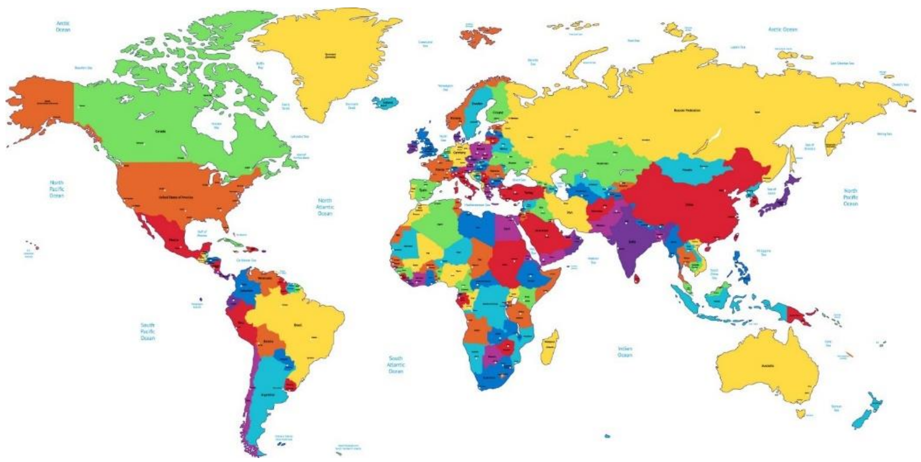
Service Performance Insight, LLC

2017 Professional Services Maturity™ Benchmark



KIMBLE

February 2017

Service Performance Insight

www.SPIresearch.com

Service Performance Insight

Service Performance Insight (SPI) is a global research, consulting and training organization dedicated to helping professional service organizations (PSOs) make quantum improvements in productivity and profit. In 2007, SPI developed the PS Maturity Model™ as a strategic planning and management framework. It is now the industry-leading performance improvement tool used by over 15,000 service and project-oriented organizations to chart their course to service excellence.

The core tenet of the PS Maturity Model™ is PSOs achieve success through the optimization of five Service Performance Pillars™:

- **Leadership**
- **Client Relationships**
- **Human Capital Alignment**
- **Service Execution**
- **Finance and Operations**

The SPI Advantage – Research

Service Performance Insight provides an informed and actionable third-party perspective for clients and industry audiences. Our market research and reporting forms the context in which both buyers and sellers of information technology-based solutions maximize the effectiveness of solution development, selection, deployment and use.

The SPI Advantage – Consulting

Service Performance Insight brings years of technology service leadership and experience to every consulting project. SPI Research helps clients ignite performance by objectively assessing strengths and weaknesses to develop a full-engagement improvement plan with measurable, time-bound objectives. SPI Research offers configurable programs proven to accelerate behavioral change and improve bottom line results for our clients.

To provide us with your feedback on this research, please send your comments to:

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For more information on Service Performance Insight, please visit:

www.spiresearch.com

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Greetings from Kimble

Kimble Applications is pleased to have sponsored Service Performance Insight's Professional Services Maturity™ Benchmark Report for the third year in a row. Once again, SPI has produced high-quality insights for the professional services industry, based on extensive surveys of hundreds of organizations. The report is widely recognized as the most comprehensive source of data to which consulting organizations can compare their performance against their peers and gain insight into the latest industry trends. We trust you too will find it useful.

I am pleased that a record number of Kimble customers were able to take part in the survey and I know they are looking forward to receiving this final report. On behalf of Kimble, I offer congratulations to **three of our customers,** who have been listed among the **"best of the best" performers of 2017.**

Here at Kimble, we are proud of the part we play in helping consulting organizations to grow and scale. Our customers grow faster than their competitors and increase EBIT typically by between 2 and 5 percentage points through using Kimble's flexible best practice framework. Users at all levels are coached to follow behaviors proven to improve business performance. The system is now used daily by over 30,000 people across more than 200 customers ranging in size from 20 to 6000 people.

Kimble was established in 2010 by founders who successfully built and sold consulting firms, which is why customers say Kimble's professional services automation application "is built to support the way I want our organization to work".

Kimble embeds augmented intelligence in a way that allows the business to be controlled as it expands. The powerful software coaches staff to perform at the best of their abilities.

Regardless of size, what characterizes all our customers is that they are highly ambitious organizations. Kimble has overturned the idea that PSA software is all about gathering data to help issue invoices. We believe that the real purpose of PSA is to enable people throughout the business to make better decisions – decisions that improve business performance.

The Kimble application connects three critical management domains – pipeline, resourcing and delivery – but it connects them with role-specific workflows and real-time dashboards that prompt project managers, resource planners and business development people to take action on the business.

The course of evolution for consulting firms may be uncertain, but it's our passionately-held belief that operational efficiency and the ability to put the right information in the hands of the people who need it, when they need it, and guide them as to how to best use it, are capabilities which will power the growth of the most successful firms.

I hope you enjoy the report.

Mark Robinson
Chief Marketing Officer, Kimble Applications

For more information, visit our website at www.kimbleapps.com

1. Foreword

Every year brings change to the professional services industry but with a new wave of political unrest, protectionism, and global turmoil, 2017 promises to be a year of challenging surprises. The people-based professional services industry will undoubtedly be faced with sweeping changes in healthcare, taxation and the ability to employ non-resident workers all while dealing with ongoing business model evolution. Tech companies will be faced with unique challenges including adapting to new accounting standards, embracing hybrid business models with a myriad of billing options, and meeting new compliance requirements. While the backdrop for the professional services industry is quite bright, the challenges associated with sustaining and managing growth have never been more daunting.

Service Performance Insight (SPI Research) is proud to introduce the ***tenth-annual Professional Services Maturity™ Benchmark***. For a decade we have researched, benchmarked and built a maturity model to:

- Help professional services (PS) executives better understand how their organization compares to others that are both similar in size and scope of work, as well as to the broader professional services market; and,
- Provide an objective, fact-based framework for performance improvements that helps pinpoint the areas that will provide the greatest impact.

In 2007, SPI Research developed the PS Maturity Model™ as a strategic planning and management framework. It is now the industry-leading performance improvement tool used by over 15,000 service and project-oriented organizations to chart their course to service excellence.

Why Benchmark?

The PS Maturity™ model helps executives compare and analyze their own performance so they can build consensus around the actions to take, and where to start, while quantifying the benefits of change. Analyzing the benchmark data by vertical market, geographic region and organization size gives PS executives an accurate comparison to their peers and the market at large. Over 3,000 firms have completed SPI's benchmarking surveys over the past ten years.

Table 1: Five-year PS Key Performance Metrics

Key Performance Indicator (KPI)	2012	2013	2014	2015	2016
Annual PS revenue growth	11.5%	10.0%	10.0%	10.2%	9.0%
Annual PS headcount growth	8.9%	7.5%	8.1%	7.8%	6.5%
Percentage of billable personnel	75.2%	71.2%	75.1%	70.4%	74.6%
Employee Attrition	7.2%	8.3%	8.9%	12.9%	13.6%
Annual revenue per consultant (k)	$206	$193	$197	$198	$205
Annual revenue per employee (k)	$168	$155	$167	$157	$163
Profit (EBITDA %)	**16.8%**	**11.4%**	**13.2%**	**15.5%**	**14.2%**

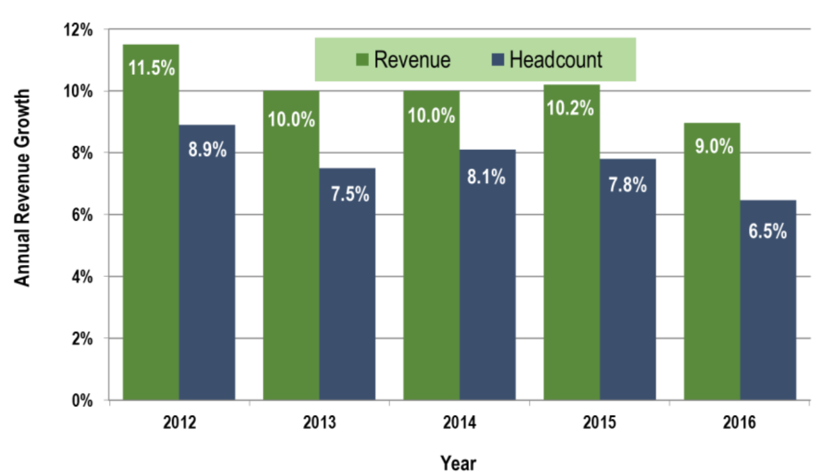
Source: Service Performance Insight, February 2017

Change is constant in professional services with each year bringing new geopolitical, socioeconomic and technology disruption. After all, without disruption and change, professional services would not exist because clients would not need expert help to navigate new opportunities and landmines. Over the past ten years of benchmarking, Service Performance Insight has seen great change in the marketplace, particularly in the ever-growing adoption of integrated, cloud-based business applications which have helped firms wring ever higher levels of productivity and profit out of this labor-based business.

Ten years ago, who could have predicted the growth in social, mobile, analytics and cloud (SMAC) technologies which have transformed entire business segments and empowered individuals and line of business executives with unprecedented information access and control?

This year's survey reached a near-record number of respondents (416). With growth in the number of completed surveys, data accuracy improves and enables us to expand coverage into more sub-verticals and geographies. This wealth of data means the depth, breadth and accuracy of the benchmark continues to expand. This edition, based on a large data set, incorporates expanded vertical market coverage including VARs (Value Added Resellers); Managed Service providers; Research and Development, Healthcare and Staffing. We have significantly improved the statistical depth and data validity for architects and engineers, accountancies and marketing and advertising firms. We also garnered input from a host of new PS segments such as contract research and healthcare services. Every year SPI Research has worked to broaden the survey to reach more geographic regions so that it truly represents a worldwide performance survey. While we have not achieved all of our goals, we still feel as though this benchmark is the gold standard for the consulting industry. It is used by well over 15,000 billable professional services organizations to benchmark their operations and gain insight into ways they can improve.

Figure 1: Annual PS Revenue Growth vs. Headcount Growth



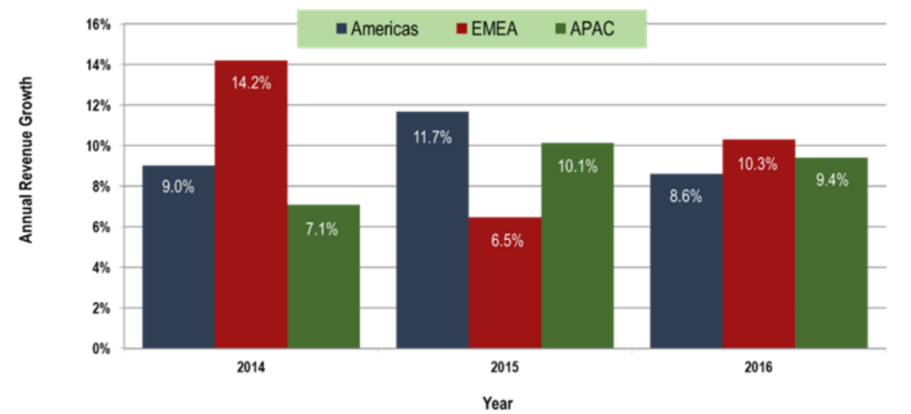
Source: Service Performance Insight, February 2017

Productivity improvements are critical in professional services. As the global economy sluggishly grows at less than 2%, organizations in every industry are having to work harder to achieve higher productivity, without adding substantial cost. Every year, PS revenue growth exceeds headcount growth, meaning the industry as a whole is continually ratcheting up output. This year, although top-line revenue growth was still relatively strong, headcount growth slowed significantly in large part due to a growing talent shortage. To combat the lack of skilled consultants, firms are using a host of creative recruiting and skill-building strategies to squeeze ever higher levels of efficiency from their workforces.

PS Sector Growth is Slowing

Despite a bumpy start in 2016 and a surprising geopolitical surge of populism and isolationism, the stock market soared to record highs. Brexit in the UK and the election of Donald Trump in the U.S. have woken up the world to the growing disparity between rich and poor and the fear and disenfranchisement this has created. Government institutions are groaning with the burden of terrorism and refugees yet big business, especially the technology sector, appears to be thriving. 2017 will be an interesting year to see if cooler heads can prevail and shift the focus to building a stronger global economy. Hopefully the consulting industry will be able to sail through these stormy seas just as it has for the past 10 years.

Figure 2: Annual Revenue Growth by Geography



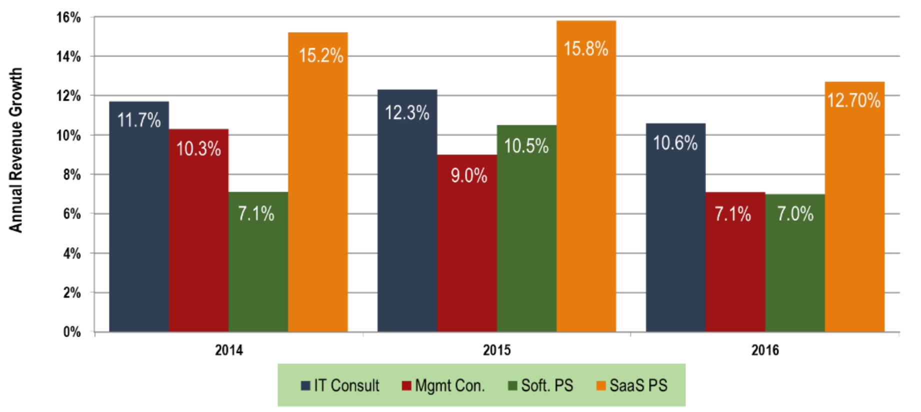
Source: Service Performance Insight, February 2017

It seems the whole world is becoming services driven. Services now generate 59 percent of the U.S. gross domestic product, compared with just 27 percent for industry and 14 percent for agriculture. Look under the hood of almost any industry and you will find traditional healthcare, financial services and manufacturing companies looking to grow services as a predictable and profitable revenue stream. This unprecedented growth in the services economy is not without its own set of challenges as new business models and buying preferences emerge. Service providers are keenly interested in exploring subscription and usage based pricing and billing models, hoping to secure annuity clients and revenue streams.

In 2016 although professional service industry growth continued, revenue growth slowed from 10.2% in 2015 to 9% in 2016. This is the first time since the recessionary year of 2010 that overall PS sector revenue growth has dipped below 10%. By geography, EMEA reported significant improvement while the Americas and Asia-Pacific experienced a decline. After years of tepid growth, Europe appears to be making a recovery with revenue growth expanding from 6.5% in 2015 to 10.3% in 2016. These results mirror overall GDP growth with the Eurozone outpacing the U.S. at 1.7% compared to 1.6% for the first time since 2008. In the Americas, revenue growth slowed from 11.7% in 2015 to 8.6% in 2016. Asia-Pacific also experienced a decline in revenue growth from 10.1% to 9.4%.

Underlying top level year over year revenue growth we see very uneven sector performance with organizations focused on the cloud, security, analytics and artificial intelligence experiencing significant growth while more traditional segments of accounting, architecture and networking are seeing consolidation and price pressure. Now is the time for all PSOs to carefully evaluate their markets and market positioning to ensure they stay ahead of the curve and to seize emerging market opportunities before they become mainstream and commoditized.

Figure 3: Annual Revenue Growth by PS Industry Segment

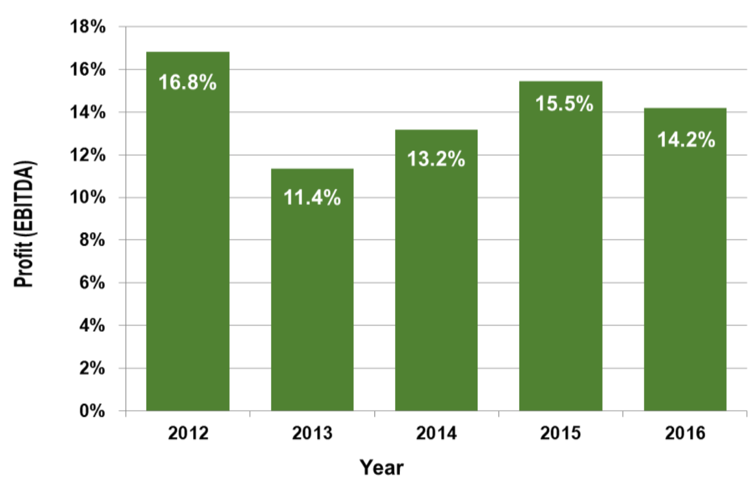


Source: Service Performance Insight, February 2017

Profits Decline

Overall net profit declined 8.4% from 15.5% in 2015 to 14.2% in 2016. The primary catalyst for lower PS sector profit came from an unexpected source. Firms increased the percentage of top line revenue derived from subcontractor and pass-through revenue (the resale of hardware, software and other products). This pass-through revenue had a negative impact on overall profit as these revenue sources produced less margin than direct labor margins. At the same time, non-billable travel and marketing expense increased, further eroding net profit margins. Independents experienced a moderate decrease in profitability, moving from 13.6% to 11.5% with IT and management consultancies both seeing a decline. Embedded SaaS and hardware and networking PSOs also reported a decline in profitability while enterprise software PSOs saw their contribution margin increase from 19.9% to 23.6%, making them the most profitable segment of the global PS industry.

Figure 4: Annual Profit (EBITDA)



Source: Service Performance Insight, February 2017

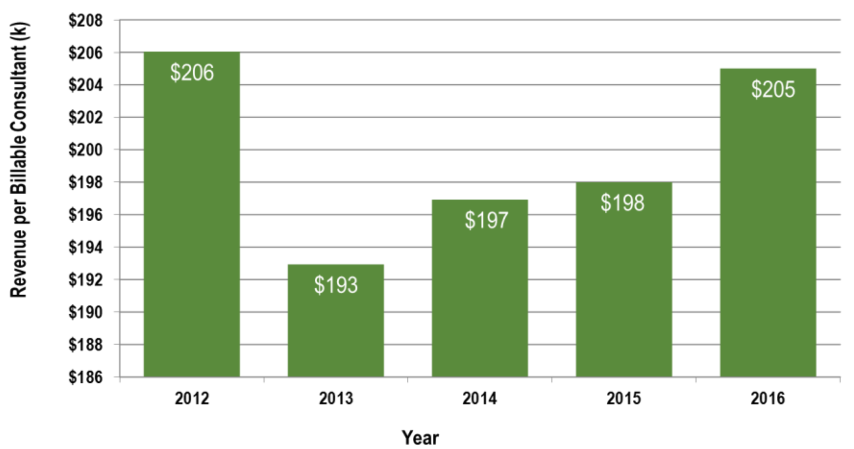
The overall fundamentals of the Professional Services industry remain very strong with PSOs making tremendous strides in improving productivity. Today far less time and cost are spent on administration and travel as PS-specific business applications have enhanced productivity and virtual consulting delivery has reduced the burden and cost of travel.

Signs of Improvement

Despite slightly lower profits, many leading indicators improved in 2016. A real bright spot is the fact that revenue per consultant improved to the highest level in four years. This increase can be attributed to decreased time spent on administration and non-billable client hours. Revenue per employee also improved, driven by reduced levels of non-billable headcount combined with higher consultant productivity and reduced per capita discretionary spending.

Many other leading indicators experienced significant improvement with project backlog, the size of the sales pipeline and the number of projects delivered on-time all making positive gains. Unless the world goes into an unforeseen tail spin, 2017 should be a very good year in professional services.

Figure 5: Revenue Per Consultant



Source: Service Performance Insight, February 2017

A word of caution

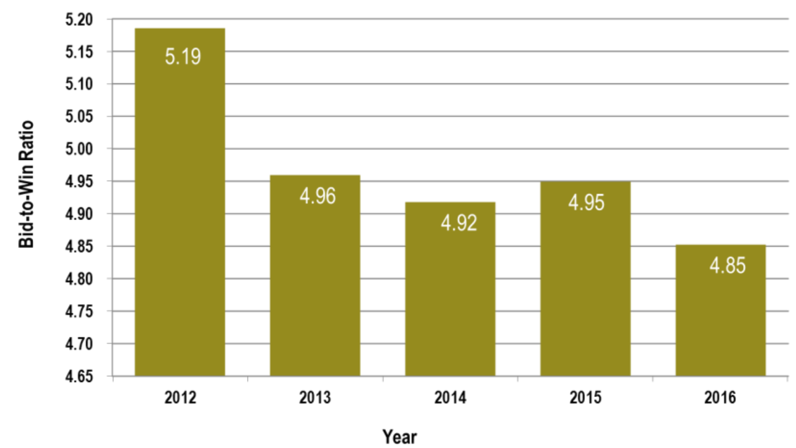
Despite primarily good news and positive improvements in the size of the sales pipeline and project backlog, some issues demand consideration. Across the benchmark, many of the client relationship metrics declined. Particularly the win ratio which signifies increasing competition along with declining scores for sales, marketing and solution development effectiveness. In a global market with new entrants springing up daily to challenge the status quo, all PSOs must improve their sales, marketing and solution development capabilities. One of the proven success formulas for aligning sales and service delivery continues to be integrated CRM and PSA applications which coordinate the entire customer lifecycle and shine a light on customer issues and opportunities.

The age-old issue of talent management and attrition continues to impact the industry, with attrition rising to its highest level. With an intense war for top talent, skilled employees are increasingly leaving their current employers to move to greener pastures. Now more than ever before, professional services organizations must establish their brand and culture as a great place to work so they can attract and retain the skilled resources they need to grow revenues and delight their customers.

Competition intensifies

A powerful indication of increasing competition is the Bid-to-Win ratio. This metric measures the number of winning bids or proposals out of every 10 submitted. It is certainly correlated with the size of the sales pipeline and sales effectiveness. Lower Bid-to-Win ratios portray heightened competition but may also be a symptom of underlying sales and marketing issues. Strategies to improve Bid-to-Win ratios should start with a reexamination of market positioning and service packaging.

Figure 6: Bid-to-Win Ratio



Source: Service Performance Insight, February 2017

Do target buyers know about your firm? Do current clients provide a rich source of referrals and repeat business or are they lukewarm on the value you provide? What is the common element in the deals you win? Lose? How can you improve your hit ratio? Should you more carefully scrub your sales pipeline to remove unreliable long shots?

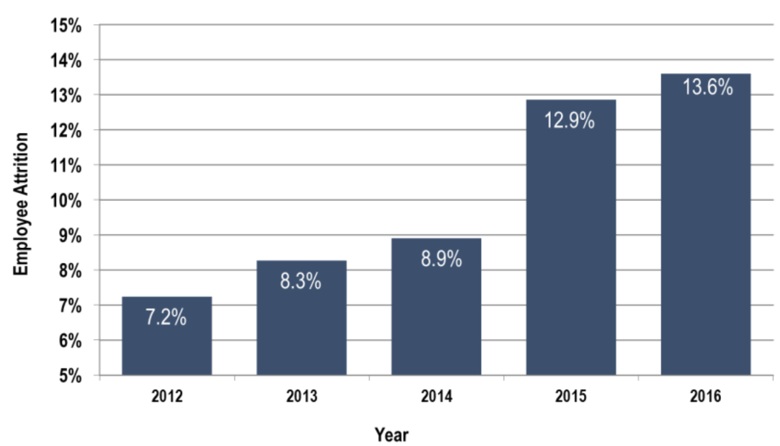
Employee attrition is rising

Starting in 2015, SPI Research asked firms to report both voluntary and involuntary attrition rates which were as follows:

- ∆ Voluntary: 8.1%
- ∆ Involuntary: 5.5%

It is likely answers for previous years were only for voluntary attrition. Regardless, we know that attrition is rising. This is undoubtedly one of the most

Figure 7: Employee Attrition



Source: Service Performance Insight, February 2017

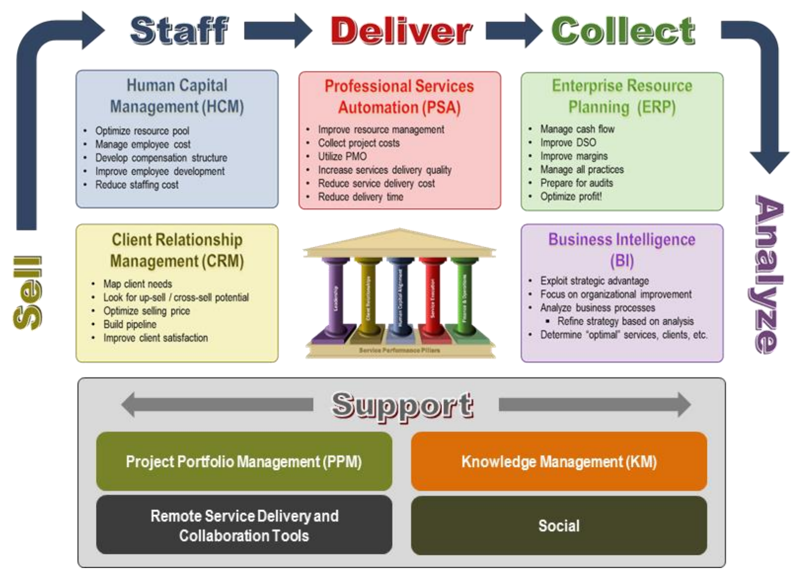
vital metrics to watch, as the cost to replace a valuable employee is in excess of $150,000 and kills organizational productivity.

Information – more essential than ever before!

As the professional services market has grown more competitive, and volatility within the market intensifies, information has become a competitive weapon to increase performance and profit. Lack of an effective information infrastructure is no longer an option! In each of the ten years of surveying, SPI Research has seen a gradual increase in the use of information technology to run finance and accounting, sales and marketing, human resources, service delivery, and business analysis and reporting.

These solutions are core to the success of each department, but better serve the entire PSO when they are integrated throughout. Integrated business solutions enable all team members to have access to one source of the truth, expediting fact-based decisions and real-time response to opportunities and challenges. Being able to visualize changes and trends by client, employee, service line and market brings into focus problems and facilitates investment in the most-promising growth avenues.

Figure 8: Integrated Information Drives Performance Higher!



Source: Service Performance Insight, February 2017

While these core solutions help PSOs run the business, the number and variety of ancillary applications has grown exponentially particularly in the areas of social, remote service delivery, collaboration and knowledge management. These solutions help make employees at all levels more productive, which ultimately impacts project margins and organizational profitability. On the downside, the pace of technology change, overlap and interdependence has become significantly more complex, with shorter and shorter product release cycles. The abundance of overlapping solutions has made the job of technology consultants and IT professionals ever harder as the breadth and depth of knowledge they must possess has become almost overwhelming.

2017 is here and the future looks bright

The beginning of 2017 has been positive for the stock market but turbulent from a political standpoint. In the Professional Services sector, times are good, with plenty of interesting work and abundant client challenges. We are seeing a new millennial workforce, dependent on technology and instant global communication, take charge. Knowledge workers around the world are increasingly becoming more consultant-like with heightened expectations for measurable work effort and output.

Businesses and business models are being upended by a move to usage based consumption and subscription billing. Millennial and line of business buyers demand ease and access, with price becoming less important. Yet the age-old professional services business model based on applying specialized knowledge and skills to solve complex problems still persists and thrives. Transformation is coming slowly to this industry, with incremental improvements seen in productivity, knowledge capture and repeatable frameworks but we are not yet seeing revolutionary changes. If anything, the world of professional services is becoming more attractive, no longer so focused on basic "infrastructure and plumbing" supplied by armies of developers, we are now able to focus on more meaningful business processes and truly impactful transformation and change management.

The professional services market remains upbeat and growing. No let-up in demand is seen and clients seem content to engage specialized service providers in traditional ways – focused on project outcomes but still based on traditional time and materials pricing. The 2017 PS Maturity™ benchmark shows firms are increasingly getting back to basics with a focus on workforce productivity and financial hygiene. Good old sales and service delivery collaboration and blocking and tackling are the elements of transformation, not massive business model changes. The winners spend their time closely watching the market, jumping in and seizing opportunities as soon as they can while wringing higher productivity out of cash cow solutions to pay for these investments.

Today, discussions of "brand" and "culture" come up in most professional services conversations because PSOs understand they must understand and cultivate differentiation to stay ahead of the pack. What they really mean is they are intently focused on hiring the best and brightest to propel their success in new markets. They understand they must create a compelling vision of the future and quickly hire to bring that vision into reality. Now is not the time for PSOs to rest on old skills, competencies and systems, more than ever before they need to be bold and disciplined to seize new solutions before they become mainstream.

The pace and magnitude of technology change at times seem insurmountable but somehow millions of consultants find a way to stay abreast of this mounting complexity to make sense of it all for their clients. New technologies continue to transform the professional services market, and nowhere is this more evident than in the social, mobile, analytics and collaboration (SMAC) space. These solutions, many of which are embedded in core business suites such as Enterprise Resource Planning (ERP), Client Relationship Management (CRM), Professional Services Automation (PSA), and Human Capital Management (HCM), are becoming increasingly critical to the success and growth in professional services. Professional Services is an employee driven market, and providing the best tools that provide the best insight underlies all performance improvements.

2. The Professional Services Maturity™ Model

SPI Research has spent over a decade benchmarking varying levels of operational control or process "maturity" to determine the characteristics and appropriate behaviors for Professional Services Organizations based on their organizational lifecycle stage. The primary questions SPI Research was seeking to answer when the PS Maturity™ Benchmark was first conceived remain our primary focus:

- What are the most important focus areas for professional service organizations (PSOs) as their businesses mature?
- What is the optimum level of maturity or control at each phase of an organization's lifecycle?
- Can diagnostic tools be built for assessing and determining the health of key business processes?
- Are there key business characteristics and behaviors that spell the difference between success and failure?

The original concept behind SPI Research's PS Maturity Model™ was to investigate whether increasing levels of standardization in operating processes and management controls improve customer satisfaction and financial performance. ***The 2017 PS Maturity™ Benchmark demonstrates that increasing levels of business process maturity do indeed result in significant performance improvements (Table 2).***

Table 2: Maturity Matters!

Key Performance Measurement	Maturity Level 1-2	Maturity Level 3	Maturity Level 4-5
Percentage of respondents	54.6%	25.0%	20.4%
Year-over-year change in PS revenue	4.3%	11.4%	18.0%
Deal pipeline / qtr. bookings forecast	160%	193%	242%
Employee billable utilization	64.3%	72.3%	79.0%
Projects delivered on-time	70.2%	82.9%	86.1%
Annual rev. per billable consultant (k)	$155	$220	$249
Annual revenue per employee (k)	$113	$177	$208
PS EBITDA	**7.8%**	**13.3%**	**19.6%**

Source: Service Performance Insight, February 2017

In fact, SPI Research found that high levels of performance have far more to do with leadership focus, organizational alignment, effective business processes and disciplined execution than "time in grade." Relatively young and fast-growing organizations can and do demonstrate surprisingly high levels of maturity and performance excellence if their charters are clear.

Further improvements accrue when their goals and measurements are aligned with their mission, and they make the investments they need in talent and systems to provide visibility and appropriate levels of business control. Of course, it certainly helps if they are also well-positioned within a fast-growing market.

The core tenet of the PS Maturity Model™ is service and project-oriented organizations achieve success through the optimization of five Service Performance Pillars™:

1. **Leadership** – Vision, Strategy and Culture
2. **Client Relationships**
3. **Human Capital Alignment**
4. **Service Execution**
5. **Finance and Operations**

Within each of the Service Performance Pillars™, SPI Research developed guidelines and key performance maturity measurements. These guidelines cut across the five service dimensions (pillars) to illustrate examples of business process maturity. This study measures the correlation between process maturity, key performance measurements and service performance excellence.

Service Performance Pillars™

Ten years ago, SPI Research developed a model that segments and analyzes a PSO into five distinct areas of performance that are both logical and functional. We call the five underpinning elements Service Performance Pillars™ because they form the foundation for all professional services organizations (Figure 9):

Figure 9: Service Performance Pillars™

Source: Service Performance Insight, February 2017

1. **LEADERSHIP - VISION, STRATEGY AND CULTURE**: (*CEO*) a unique view of the future and the role the service organization will play in shaping it. A clear and compelling strategy provides a focus for the organization and galvanizes action. Effective strategies bring together target customers, their business problems, and how a solution solves those problems differently, uniquely, or better than its competitors. For a service strategy to be effective, the role and charter of the service organization must be defined, embraced, communicated and supported throughout the company. Depending on whether the service strategy is to primarily support the sale of products, or to drive service revenue and profit; service organization goals and measurements will vary. Leadership skills and competencies must mature as the organization matures. Culture is the unwritten customs, behaviors and beliefs that determine the "rules of the game" for decision making, structure and power. The core leadership pillar processes include setting strategy, business planning and management.

2. **CLIENT RELATIONSHIPS**: (*Marketing and Sales*) the ability to communicate effectively with employees, partners and customers to generate and close business and win deals. Effective client

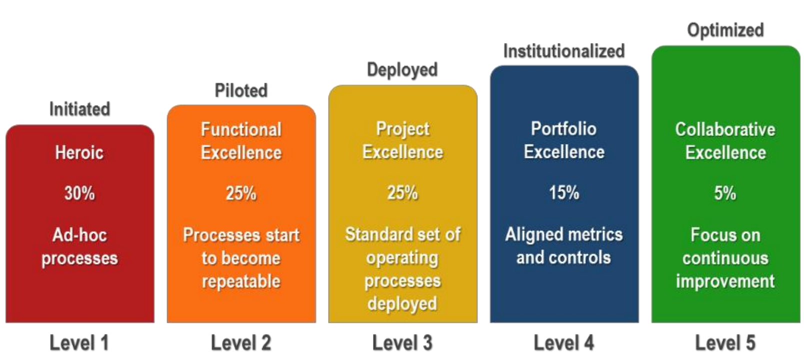
management involves developing a clear and compelling go-to-market strategy which defines target buyers, their requirements and how our solution solves those challenges in a differentiated way. This pillar encompasses all aspects of marketing, lead generation, quoting and selling solutions as well as contract management and partnering. The core business processes performed in the client relationships pillar include marketing, selling and the entire quote to cash business process.

3. **HUMAN CAPITAL ALIGNMENT**: (*Human Resources*) the ability to attract, hire, retain and motivate a high-quality consulting staff. With changing workforce demographics, talent management has increased in importance. High-caliber employees represent the essence, brand and reputation of the firm. PSOs are starting to adopt hybrid on and off-site staffing models which put increased pressure on customer-facing staff to develop client relationships and more carefully define client requirements. Demands for career planning, skill development and flexible work options have intensified. The core human capital management processes include recruiting, hiring, training, compensation, performance and career management.
4. **SERVICE EXECUTION**: (*Engagement/Delivery*) the methodologies, processes and tools to effectively schedule, deploy and measure the quality of the service delivery process. Service execution involves several factors: from resource management, to delivering projects in a predictable and acceptable time frame, to reducing cost while improving project quality and harvesting knowledge. Processes include resource management, capacity planning, project planning and quality control, knowledge management and methodology and tool development.
5. **FINANCE AND OPERATIONS**: (*CFO*) the ability to manage services profit and loss — to generate revenue and profit while developing repeatable operating processes. The finance and operations pillar focuses on revenue, margin and cost and the financial, contractual and IT operating processes and controls required to run a profitable and predictable business.

Professional Services Maturity™ Model Benchmark Levels

The model is built on the same foundation as the Capability Maturity Model (CMM), which has been adopted for software development; but is specifically targeted toward billable PSOs, that either exclusively sell and deliver professional services or complement the sale of products with services. Figure 10 depicts maturity level progression and outlines primary characteristics for each maturity level:

Figure 10: Services Maturity™ Model Levels



Source: Service Performance Insight, February 2017

- ***LEVEL 1*** ***— INITIATED "HEROIC"*****: (APPROXIMATELY 30% OF PSOS)** at maturity Level 1, *processes are ad hoc and fluid*. The business environment is chaotic and opportunistic, and the focus for a PSO is primarily on new client acquisition and reference building. Often professional service employees at this level are chameleons — able to provide presales support one day and develop interfaces and product workarounds the next. Success depends on the competence and heroics of people in the organization, and not on the use of proven processes, methods or tools. Practices and procedures are informal and quality is based on individual experience and aptitude. ***Level 1 organizations are often characterized as "informal" and "heroic".***

- ***LEVEL 2*** ***— PILOTED "FUNCTIONAL EXCELLENCE"*****: (APPROXIMATELY 25% OF PSOS)** at maturity level 2, *processes have started to become repeatable*. Best practices may be demonstrated in discrete functional areas or geographies but they are not yet documented and codified for the entire organization. Basic processes have been established for the five Professional Services Performance Pillars, but they are not yet universally embraced. Operational excellence and best practices may be discerned <u>within</u> functions but not across functions. ***By Level 2 individual Functional Excellence should have emerged in key areas.***

- ***LEVEL 3*** ***— DEPLOYED "PROJECT EXCELLENCE"*****: (APPROXIMATELY 25% OF PSOS)** at maturity level 3, *the PSO has created a set of standard processes* and operating principles for all major service performance pillars but renegades and "hold-outs" may still exist. Management has established and started to enforce financial and quality objectives on a global basis. Processes have been established to focus on effective execution and there is spotlight on alignment <u>between</u> and <u>across</u> functions. By level 3 project delivery methodologies and quality measurements are in place and enforced across the organization. ***Level 3 organizations should exhibit "Project Excellence" with a consistent, repeatable project delivery methodology.***

- ***LEVEL 4*** ***— INSTITUTIONALIZED "PORTFOLIO EXCELLENCE"*****: (APPROXIMATELY 15% OF PSOS)** at maturity level 4, *management uses precise measurements, metrics and controls, to effectively manage the PSO*. Each service performance pillar contains a detailed set of operating principles, tools and measurements. Organizations at this level set quantitative and qualitative goals for customer acquisition, retention and penetration, in addition to a complete set of financial and quality operating controls and measurements. Processes are aligned to achieve leverage. The portfolio is balanced with a focus on project selection and execution. ***Level 4 organizations should exhibit "Portfolio Excellence".***

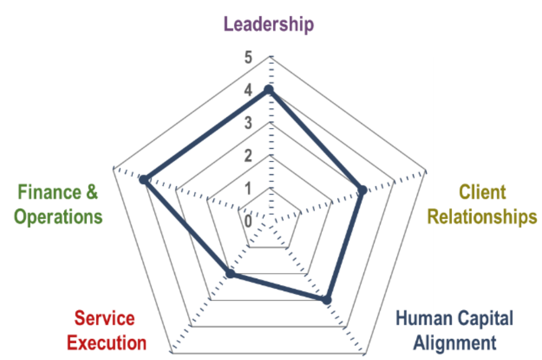
- ***LEVEL 5*** ***— OPTIMIZED "COLLABORATIVE"*****: (APPROXIMATELY 5% OF PSOS)** at maturity level 5 *executives focus on continual improvement of all elements of the five performance pillars*. A disciplined, controlled process is in place to measure and optimize performance through both incremental and innovative technological improvements. Quantitative process-improvement objectives for the organization are established. They are continually revised to reflect changing business objectives, and used as criteria in managing process improvement. Initiatives are in place to ensure quality, cost control and client acquisition. The rough edges between disciplines, functions, and specialties have been smoothed to ensure unique problems can be addressed quickly without excessive bureaucracy or functional silos. ***Level 5 organizations are visionary and collaborative both internally and with clients and external business partners.***

Over the past decade, over 15,000 PSOs have studied the PS Maturity Model ™ and now use the concepts and key performance measurements to pinpoint their organization's current maturity and develop improvement plans to advance lagging areas.

SPI Research summarizes individual PSO performance in a SPIder chart (Figure 11). The maturity scorecard provides a measurement for each organization in comparison to the benchmark maturity definitions and peer organizations. It provides an invaluable tool to analyze current performance and prioritize future improvement initiatives.

This graphical depiction of the Service Performance Pillars™ by maturity level enables PS executives to quickly scorecard their organization's performance, and diagnose areas of relative strength and weakness.

Figure 11: Service Performance Pillar Maturity™



Source: Service Performance Insight, February 2017

Building the Professional Services Maturity™ Model

With core benchmark information gleaned across all primary business functions, SPI Research built the Professional Services Maturity™ Model that determines organizational maturity — by pillar — and provides guidance to advance to the next level (Table 3).

Table 3: Performance Pillars Mapped Against Service

	Level 1 Initiated	Level 2 Piloted	Level 3 Deployed	Level 4 Institutionalized	Level 5 Optimized
Leadership	Initial strategy is to support product sales and provide reference customers while providing workarounds to complete immature products. Leaders are "doers".	PS has become a profit center but is subordinate to product sales. Strategy is to drive customer adoption and references profitably. Leaders focus on P&L and client relationships.	PS is an important revenue and margin source but channel conflict still exists. Services differentiate products. Leadership development plans are in place. Leaders have strong background & skills in all pillars.	Service leads products. PS is a vital part of the company. Solution selling is a way of life. PS is included in all strategy decisions. Succession plans are in place for critical leadership roles	PS is critical to the company. Service strategy is clear. Complimentary goals and measurements are in place for all functions. Leaders have global vision and continually focus on renewal & expansion.

	Level 1 Initiated	Level 2 Piloted	Level 3 Deployed	Level 4 Institutionalized	Level 5 Optimized
Client Relationships	Opportunistic. No defined solution sets or Go to Market plan. Focus is on new customers and reference building. Individual heroics, no consistent sales, marketing or partnering plan or methodology. No consistent estimating, quoting or contract management processes. Ad hoc, one-off projects.	Start to use marketing to drive leads. Multiple sales models. Start investing in sales training, CRM & sales methodology. Start measuring sales effectiveness & client satisfaction. Start developing partners and partner programs. Some level of proposal reviews and pricing control.	Marketing, inside sales, solution sales with defined solution sets. CRM integrated with financials and PSA. Deal, pricing and contract reviews. Partner plan and scorecard. Tight pricing and contract mgmt. controls. High levels of customer satisfaction.	CRM, PSA, ERP integration provides 360-degree view of client relationships. Business process, vertical and horizontal solutions. Vertical client centers of excellence. Top client and partner programs. Global contract and pricing management. Key partner relationships. Strong customer reference programs.	Executive relationships. Thought leadership. Brand building and awareness. High customer satisfaction. Integrated sales, marketing and partnering programs. Consistent, high quality marketing, sales, contract management and pricing processes, systems and measurements. High quality references.
Human Capital Alignment	Hire as needed. Generalist skills. Chameleons, Jack of all Trades. Individual heroics. May perform presales as well as consulting delivery and project management.	Begin forecasting workload. Start developing job and skill descriptions & compensation plans. Rudimentary career paths. Start measuring employee satisfaction.	Resource, skill and career management. Employee satisfaction and engagement surveys. Training plans. Aligned goals and measurements with compensation. Attrition <15%	Business process and vertical skills in addition to technical and project skills. Career ladder and mentoring programs. Training investments to support career. Low attrition, high satisfaction	Continually staff and train to meet future needs. Highly skilled, motivated workforce. Outsource commodity skills or peak demand. Sophisticated variable on and off-shore workforce models.
Service Execution	No scheduling. Reactive. Ad hoc. Heroic. Scheduling by spreadsheet. No consistent project delivery methods. No project quality controls or knowledge management.	Skeleton methodology in place. Centralized resource mgmt. Initiating project mgmt. and technical skills. Starting to measure project satisfaction and harvest knowledge.	PSA deployed for resource and project management. Collaborative portal. Earned Value Analysis. Project dashboard. Global Project Management Office, project quality reviews and measurements. Effective change management.	Integrated project and resource management. Effective scheduling. Using portfolio management. Global PMO. Global project dashboard. Global Knowledge Management. Global resource management.	Integrated solutions. Continual checks and balances to assure superior utilization and bill rates. Complete visibility to global project quality. Multi-disciplinary resource management.
Finance and Operations	The PSO has been created but is not yet profitable. Rudimentary time & expense capture. Limited financial visibility and control. Unpredictable financial performance. Rudimentary contract and risk management.	5 to 15% margin. PS becoming a profit center but still immature finance and operating processes. Investment in ERP and PSA to provide financial visibility. May not have real-time visibility or BI. Standard Library of Contracts and Statements of Work.	15 to 25% margin. PS operates as a tightly managed P&L. Standard methods for planning, resource mgmt., time & expense mgmt., cost control & billing. In depth knowledge of all costs at the employee, sub-contractor & project level. Processes in place for contract management, legal and pricing decisions.	PS generates > 20% of overall company revenue & contributes > 30% margin. Well-developed finance and operations processes and controls. Systems have been implemented for CRM, PSA, ERP and BI. IT integration and real-time visibility. Systems have been implemented for contract management, legal and pricing decisions.	> 30% margin. Continuous improvement and enhancement. High profit. Integrated systems. Global with disciplined process controls and optimization. Completely integrated financial, CRM, resource management, contracts and pricing systems, processes and controls.

Source: Service Performance Insight, February 2017

Why Maturity Matters

SPI Research believes wide support for the PS Maturity™ model is due to its holistic approach to measuring performance. ***Maturity is determined through alignment and focus both within <u>and</u> across functions.*** For example, although financial measurements are of primary importance they are equally weighted and correlated with leadership and sales and quality measurements to ensure organizations improve across all dimensions, not just in terms of financial performance. However, if the organization is profit-motivated (which most are), increasing maturity levels do show up in significant bottom-line profit. Figure 12 highlights major key performance measurements by maturity level, and should alone be an important reason why PS executives should look deeper into using it to increase profits.

Figure 12: Professional Services Maturity™ Progression

	Level 1 Initiated	Level 2 Piloted	Level 3 Deployed	Level 4 Institutionalized	Level 5 Optimized
Confidence in PS leadership (5 pt. scale)	3.38	4.00	4.22	4.63	4.95
Year-over-year change in PS revenue	3.8%	5.0%	11.4%	14.6%	27.7%
Bid-to-win ratio (per 10 bids)	3.88	4.51	5.08	5.71	6.43
Deal pipeline relative to qtr. bookings forecast	151%	171%	193%	228%	281%
Employee billable utilization	60.7%	68.4%	72.3%	78.8%	79.5%
Projects delivered on-time	66.0%	75.1%	82.9%	84.4%	90.9%
Annual revenue per billable consultant (k)	$132	$181	$220	$243	$266
Annual revenue per employee (k)	$85	$145	$177	$203	$222
Profit (EBITDA)	**6.1%**	**9.8%**	**13.3%**	**17.7%**	**24.8%**

Source: Service Performance Insight, February 2017

Pillar Importance and Organizational Maturity

The results and insights gained in the past ten years have confirmed SPI Research's original hypothesis that ***service organizations must develop a balanced and holistic approach to improving all aspects of their business as they mature.*** SPI Research has discovered that the emphasis on individual service pillar performance shifts as organizations mature. Excellence in only one specific service performance pillar does not create overall organizational success – rather it is the ***appropriate balance and alignment within and across performance pillars***, which ultimately leads to sustainable success.

416 firms are represented in this year's survey, however, not every firm answered every question. Therefore, if a firm did not answer a specific question no analysis will be conducted on its impact. The following table shows the correlation of EBITDA (profit) and Annual revenue growth. This table compares all of the surveys with those that answered this specific question. SPI Research will eliminate the 11 firms that did not complete this questions and therefore the EBITDA is **14.1**% vs. the actual survey average of **14.2**%. We do this because showing blank answers does not really provide value to the reader (unless there is a high percentage of blanks).

Annual Revenue Growth	Surveys	Comp. %	EBITDA (w/blanks)	EBITDA (w/o blanks)
Blank	11	2.6%	18.0%	
Under -10%	25	6.0%	10.0%	10.0%
-10%- 0%	35	8.4%	10.6%	10.6%
0%- 5%	105	25.2%	13.0%	13.0%
5%- 10%	73	17.5%	16.4%	16.4%
10%- 15%	54	13.0%	13.1%	13.1%
15%- 25%	57	13.7%	19.0%	19.0%
Over 25%	56	13.5%	13.4%	13.4%
Total/Avg.	**416**	**100.0%**	**14.2%**	**14.1%**

Table 4 depicts the relative service performance pillar importance by organizational maturity level. Many professional service organizations are established without an initial focus toward optimizing performance.

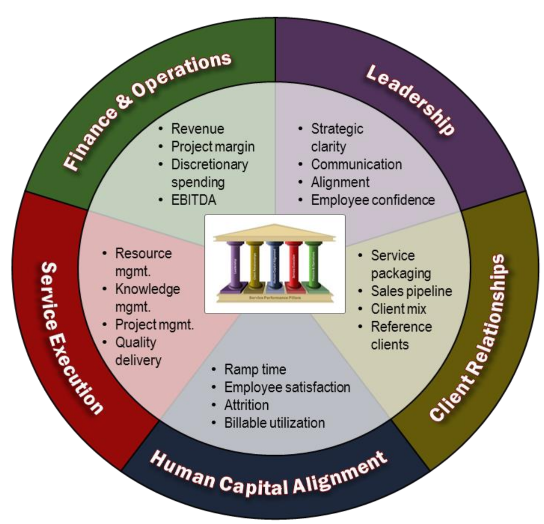
Table 4: Service Pillar Importance by Organizational Maturity Level

Pillar	Initiated	Piloted	Deploy.	Inst.	Opt.
Leadership	◔	◑	◑	●	●
Client Relationships	●	◕	◕	◕	●
Human Capital Align.	◔	◑	◕	●	●
Service Execution	◔	◑	◕	●	●
Finance and Operations	◔	◔	◕	●	●

Source: Service Performance Insight, February 2017

PSOs begin with the goal of establishing a client and reference base. They may be operated as a cost center or as an adjunct to the product function to establish alpha and beta customers and to provide early product feedback. Initially they often perform presales, training, quality assurance and service delivery tasks. They hope to deliver services that are both profitable to them as well as valued by their clients, but in reality, they take the position that "just about any deal is a good deal." The emphasis at **Level 1** maturity is on building client references and recruiting highly skilled generalist consultants who are experienced enough and flexible enough to perform heroic feats to ensure early customer success.

Figure 13: PS Performance Pillars – Core KPIs



Source: Service Performance Insight, February 2017

By **Level 2**, although primary focus is still to create reference customers, more emphasis is placed on human capital alignment for recruiting and ramping skilled employees, partners and contractors. Service execution focus is on developing repeatable project delivery methods and quality processes. At these early stages, many embedded professional service organizations have a strong product-driven focus and the role of the service organization is subordinate to products. Conflicts between service profit, client success and driving product revenue are often characteristic of Level 2 embedded service organizations.

By **Level 3** the organization must move toward a more balanced focus on all elements of the business by investing in systems, operating processes and repeatable methods to sustain growth and ensure quality. Level 3 maturity should be the aspirational target of all PS organizations because it is at level 3 that an on-going, profitable and sustainable business has emerged. At level 3 the charter of the PS organization is clear. If the organization is an embedded PS organization within a product company, PS has a seat at the executive table and is seen as adding value that transcends product implementation, integration and customization. Increasingly, embedded PS has become a critical component of ensuring customer adoption and may play a leading role in driving product management direction and strategy. Independent Level 3 PSOs are financially and operationally strong with a clear focus on targets markets and sustainable, repeatable business processes and quality controls. They have built a compelling, differentiated portfolio which is brought to life by specialized, knowledgeable consultants. At level 3, heroics and firefighting are no longer the standard way of doing business as disciplined management systems, controls and integrated systems ensure predictability and repeatability.

At **Level 4** the organization has implemented structured business processes and utilizes integrated information systems to assure there is "one view of the business". Level 4 organizations are seen as true industry leaders in their target markets. They have developed a unique and differentiated culture which attracts industry-leading consultants and clients. More than average firms, Level 4 organizations are extremely transparent. They typically have strong management controls and visibility into all facets of the business by providing dynamic, real-time access to empowered team members. Level 4 organizations continually expand their horizons and boundaries – whether it is through geographic, vertical market or technology platform expansion.

Finally, at **Level 5** the organization is running very efficiently and the focus is on continual improvement and innovation. Level 5 firms are the Best-of-the-Best. They are excellent in all functional areas but have transcended functional excellence with a collaborative, knowledge and intellectual property centric focus. Very few firms achieve sustained Level 5 performance.

3. Ten Years of Professional Services Benchmarking

It is hard to believe that this is SPI Research's tenth consecutive year of publishing the PS Maturity™ benchmark. What started out as an industry benchmark to validate our theories about what makes great Professional Services organizations great, to becoming the gold standard for the professional services industry, has taken a lot of hard work and insightful participation by thousands of PSOs. We now have ten years of data which depict the changes and growth of the global technology professional services industry. The statistics that stand out reflect the ongoing advancements in consultant productivity which have come about primarily through the availability and use of cloud-based business applications and remote (virtual) service delivery.

The other major productivity catalyst has been the advancement in the technologies that consultants deploy. Although the predicted end to software is nowhere in sight, the software and hardware that is being deployed continues to get more powerful and easier to install, integrate and customize. Ten years ago, who could have imagined the proliferation and power of smart phones which have put mainframe-class computing within the reach and price of consumers around the world. Social, mobile, analytics and the cloud are no longer "nice to haves" – these tools and technologies have become ubiquitous and irreplaceable. Technology advancement has been the one constant shining light in an otherwise lackluster global economic recovery.

There is no doubt that consulting buyers are demanding more and more from their suppliers – and getting it! Bill rates have remained relatively constant or increased, but the real productivity gains are due to lower non-billable administration costs and fewer consultant hours spent on administration. Virtual, or remote service delivery, has improved the lives of clients and consultants alike; enabling experts to solve problems from wherever they happen to be. What started out twenty years ago as the "home alone" phenomena has now become the preferred way to work for millions in the consulting world.

Table 5 provides a fascinating view of ten years of metrics. Here are a few of the trends that have emerged:

- Δ **Annual revenue growth** – Although year-over-year revenue growth has improved from the depths of the recession which hit the professional services world in 2009; it has not returned to the go-go years of 2007 and 2008 leading up to the recession. For the foreseeable future, the industry as a whole is expected to grow around 10% a year but there is a growing disparity between the hot, fastest growing firms and average firms whose growth has slowed to a snail's pace.
- Δ **Headcount growth** – Headcount growth both follows and precedes revenue growth. Interestingly, headcount growth has consistently remained 2 to 3% lower than annual revenue growth, reflecting economies of scale and productivity improvements. One sobering trend is the downward movement in headcount growth which has slowed from its zenith in 2007 of 16.8% to current anemic growth of 6.5%. This downward trend in hiring portends a consulting industry slowdown and reflects the difficulty in attracting millennial workers to the consulting profession.

There is little doubt that consulting is hard work. It takes tremendous analytic and organizational acumen combined with years of education which puts these lucrative jobs beyond the reach of average workers.

Table 5: Ten Years of Key Metrics

Year	Revenue growth	Year-over-year change in PS headcount	% of billable employees	Bid-to-Win ratio (per 10 bids)	Deal pipeline / qtr. bookings forecast	Quarterly revenue target in backlog
2007	17.2%	16.8%	68.0%	5.71	241%	49.1%
2008	14.8%	13.6%	68.1%	5.23	192%	42.7%
2009	3.6%	2.8%	69.6%	5.30	182%	42.7%
2010	7.6%	6.9%	70.8%	5.19	196%	44.7%
2011	13.7%	10.1%	74.2%	5.21	203%	45.1%
2012	11.5%	8.9%	75.2%	5.19	193%	43.3%
2013	10.0%	7.5%	71.2%	4.96	190%	45.0%
2014	10.0%	8.1%	75.1%	4.92	199%	48.4%
2015	10.3%	7.8%	70.4%	4.95	172%	40.4%
2016	9.0%	6.5%	74.6%	4.85	189%	45.6%
Avg.	**10.8%**	**8.9%**	**71.7%**	**5.15**	**196%**	**44.7%**

Source: Service Performance Insight, February 2017

- ∆ **Billable headcount** – the ratio of billable to non-billable headcount continues to improve although management span of control has remained fairly constant at 1 to 10. Two key forces are at play in the reduction in non-billable overhead. The first is the growing availability and use of cloud-based Professional Services Automation (PSA) and other business applications, which provide greater visibility and control without requiring an army of financial analysts. Based on the availability of actionable metrics and reports, the financial and operational acumen of professional service leaders is definitely improving. The second factor behind reductions in non-billable headcount is that today's PS leaders and managers are expected to be able to lead, manage, sell, bill and deliver – quite a tall order! The good news is that as the PS industry has matured, more leadership and financial training is available to help consultants grow into these roles so too is business development training so consultants can generate new business.
- ∆ **Bid-to-Win-ratio** – one troubling trend is lower winning ratios. This metric signifies increasing competition and a proliferation of high-quality consulting organizations. It also shows consulting buyers are becoming more selective and demanding. Large, legacy firms that have lived for years based on big projects from a handful of big customers are finding it hard to expand into new technologies and markets. Clearly, winning organizations are developing differentiated market positions, brands and cultures to attract the type of clients and consultants they can best serve. Differentiation leads to fewer proposals and more sole source selection, improving win ratios.

- **Size of the deal pipeline** – consulting demand remains strong although competition has intensified. This metric has fluctuated between a low of 172% in 2015 and a high of 241% in 2007. Organizations should aspire to establish a deal pipeline which is at least twice the size of the sales forecast. A combination of easy-to-close smaller deals in combination with larger, more difficult-to-close deals may help smooth fluctuations in deal closure rates.
- **Backlog** – backlog remains a critical metric as it depicts “the fuel in the tank” – deals that have already been won with contracts signed, waiting to be delivered. In 2016 average reported backlog was at a relatively healthy 45.6% which is vastly improved from the all-time low of 40.4% reported in 2015.

Table 6 shows ten years of service execution metrics. Service execution metrics have varied considerably over the past ten years with no definitive improvement or deterioration trend.

Table 6: Ten Years of Service Execution Trends

Year	Employee billable utilization	Projects delivered on-time	Average project overrun	Use a standard. delivery methodology	Annual revenue per billable consultant (k)	Project margin
2007	N/A	74.0%	12.9%	76.1%	$219	33.5%
2008	65.4%	73.6%	11.3%	67.8%	$191	34.8%
2009	67.3%	78.8%	10.7%	65.0%	$205	33.6%
2010	68.0%	77.7%	12.2%	57.9%	$188	34.1%
2011	70.2%	76.5%	8.4%	67.0%	$198	33.3%
2012	70.3%	78.6%	9.2%	64.8%	$206	35.9%
2013	70.2%	77.2%	8.7%	65.2%	$190	36.9%
2014	69.8%	78.3%	8.9%	66.2%	$197	36.2%
2015	70.6%	76.1%	10.0%	64.5%	$198	33.4%
2016	70.4%	78.1%	8.4%	71.2%	$205	35.3%
Avg.	**69.6%**	**77.2%**	**9.7%**	**66.0%**	**$199**	**34.7%**

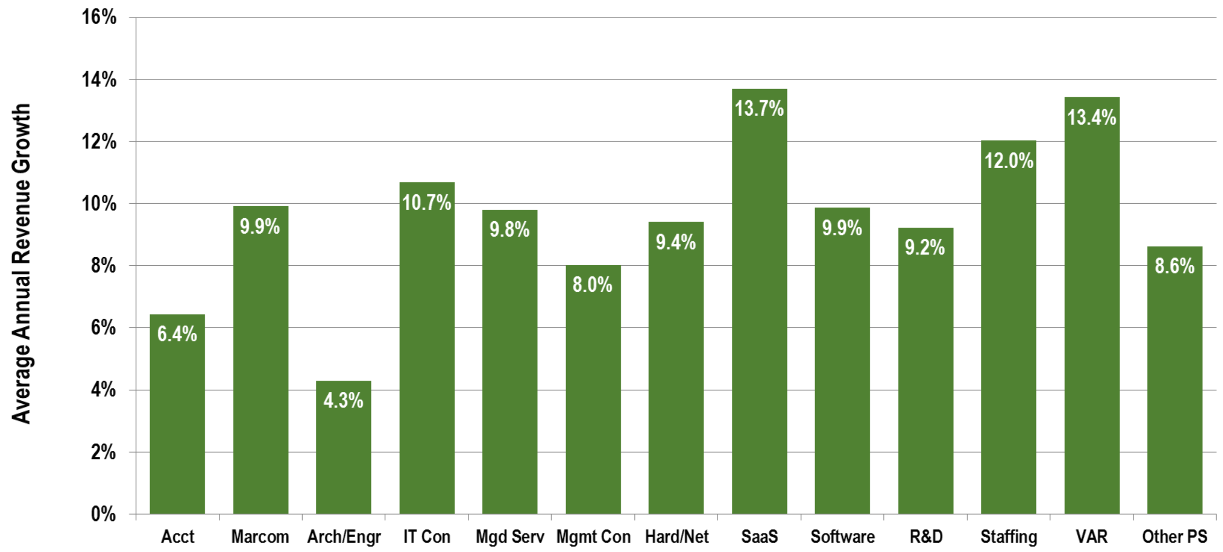
Source: Service Performance Insight, February 2017

- **Billable utilization** – remains the most measured metric in the consulting world as without plenty of productive, billable work the industry would not exist. Because billable utilization is the Rosetta Stone of the consulting profession, it is one metric which must be constantly measured because miniscule fluctuations can have a dramatic impact on profitability. As annoying as time tracking, time sheets and utilization reports are, they still predict revenue yields and project margins. It is interesting to note that as the world moves to a knowledge based versus manufacturing based economy, time tracking has extended into a whole new range of job positions – from doctors to sales reps! Certainly, revenue production, client satisfaction and repeat purchase are far better metrics to gauge employee productivity but unfortunately, they cannot be as accurately measured in real-time so we are stuck with continuing to measure billable utilization. As organizations get better at measuring and analyzing utilization trends they can better adapt to seasonal slowdowns while predicting declines in employee engagement.

- ∆ **On-time project delivery** – despite the fact the most consulting organizations claim they deliver "on-time" and "on-budget" the reality is few actually do. The good news is that this metric has remained fairly constant, just shy of 80% for the past ten years. This is certainly an improvement over "big-bang" project overruns of the past, where the majority of projects (close to 90%) experienced significant budget overruns or worse, no project completion at all. Professional Services Automation and project tracking applications have been a major factor in on-time project delivery as they enable organizations to view previous projects to understand where and why overruns are likely to occur. Reliable and accurate estimating is another factor in on-time project completion as are clear requirements and strong project governance.
- ∆ **Project overruns** – unfortunately, project overruns remain a fact of life. The probability of a project overrun goes up in direct proportion to risk factors. Project risk factors – new, unproven technology; complexity; number of geographies and languages; scale and magnitude of change are the big animal causes of project overruns. The one factor which remains a constant in project success is active executive involvement combined with effective communication. Increasingly solution architects, consultants and business analysts are being tasked with project management. This can be a good thing if these roles are given adequate project management training in combination with a strong project governance structure.
- ∆ **Standardized delivery methodology** – interestingly, many consulting organizations do not invest in building a strong, repeatable, delivery methodology. Creating and continually improving tools and methods for estimating, project delivery, knowledge capture and reuse are proven ways to improve performance and project success. The good news is that use of a standardized delivery methodology significantly improved in 2016 to the second highest level SPI Research has seen.
- ∆ **Annual revenue per billable consultant** – like utilization, revenue yields by consultant, project, client, region and solution set are important metrics. But just like utilization, they require accurate time capture and effective project and resource management, not to mention strong tools for billing and revenue recognition. Revenue yields per consultant have remained fairly constant for the past ten years, averaging $200,000 per consultant. Embedded PSOs are starting to do a better job of limiting "non-billable" time and activities because this time does not typically result in improved client satisfaction, only increased consultant burnout.
- ∆ **Project margins** – have remained relatively constant, averaging 35%. Project margin is the fuel for profit and growth, as there is no other way to make money in consulting except for selling products along with services (applications, equipment, etc.) or bundling support services.

Figure 14 depicts ten years of revenue growth by PS industry vertical. The high fliers of the consulting world are cloud service providers and Value-Added Resellers (VARs). Despite consolidation and never-ending manufacturer changes in reseller compensation, the Value-Added reseller market is alive and well. Interestingly many consulting organizations are starting to expand their portfolios into reselling hardware, software and managed services because these lines of business can be more profitable and predictable. The lowest growth PS sub-vertical is architecture and engineering, reflecting lackluster overall economic growth and depressed construction spending. The benchmark also shows the staffing industry is alive and well, despite pricing pressure.

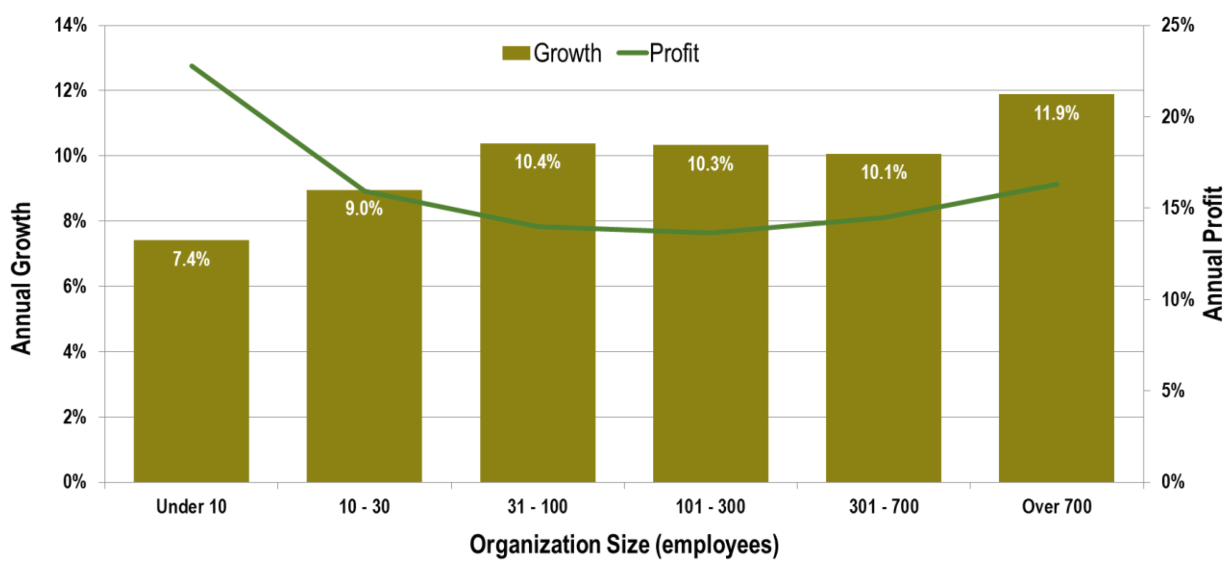
Figure 14: Professional Services Annual Revenue Growth (2007 – 2016)



Source: Service Performance Insight, February 2017

Figure 15 shows the largest consulting firms are buying their way to prosperity by gobbling up small to medium size firms that have latched on to high growth technologies and markets. With over 3,000 consulting firm acquisitions a year, any organization that successfully grows to 100 consultants is fair game for opportunistic buyers. It is rare to find a successful independent consulting organization who is not entertaining an acquisition exit strategy. This explosive growth of hot, young new consulting organizations combined with the insatiable buying appetite of larger, more established firms continues to make the professional service industry an exciting place to be! As shown in the figure, the largest organizations are experiencing the highest growth rates while the smallest are experiencing the least amount of growth. Many small consulting businesses generate substantial income and profit.

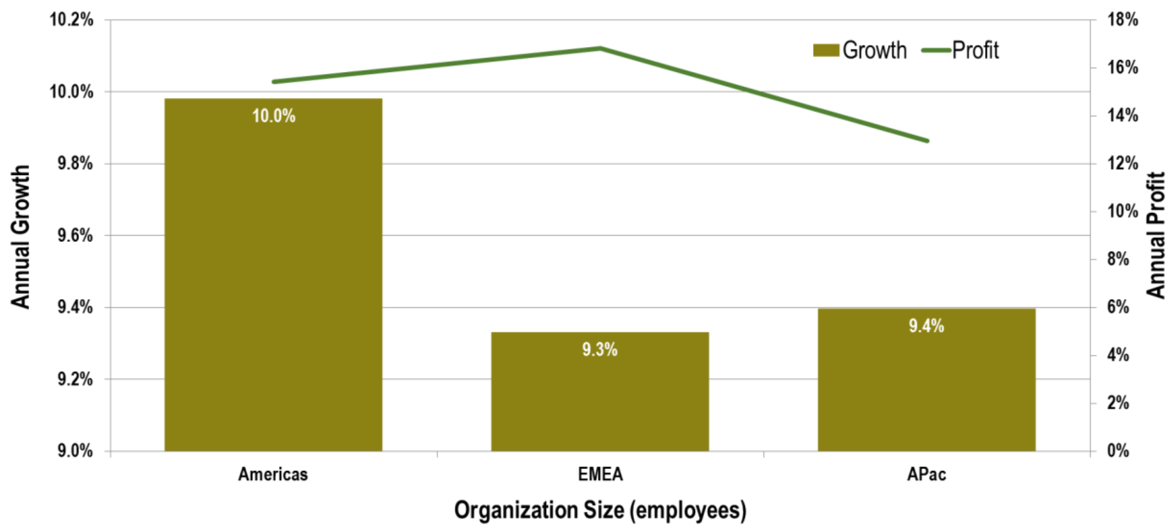
Figure 15: 2007 – 2016 Annual Revenue Growth and Profit by Organization Size



Source: Service Performance Insight, February 2017

Figure 16 shows consulting growth for the past 10 years has been strongest in the Americas and relatively anemic in Europe. These consulting industry growth trends mirror regional growth with the Americas showing the strongest economic recovery and Europe the least. In Europe, consulting growth has been strongest in the UK and Germany, once again reflecting overall economic prosperity.

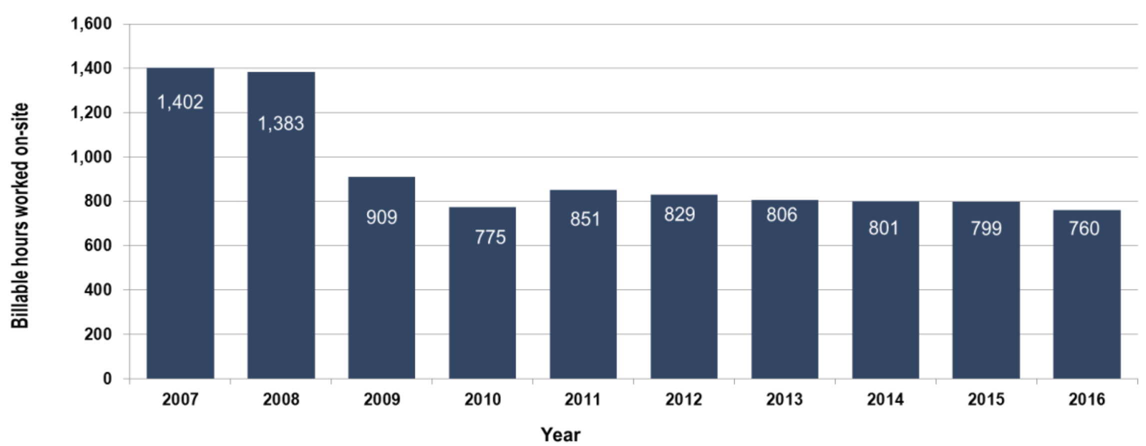
Figure 16: 2007 – 2016 Annual Revenue Growth and Profit by Geographic Headquarters



Source: Service Performance Insight, February 2017

One of the most positive trends impacting the consulting industry has been the growing acceptance of "virtual" project delivery. Consulting clients are increasingly operating virtually, with employees and teams operating from homes and offices around the globe. Being able to limit the cost and time involved in travel has significantly improved consultant quality of life. In many cases virtual service delivery has improved service delivery quality as well because more junior staff are able to easily access experts. Virtual teams and remote service delivery have accentuated the need for effective communication and project governance – to keep all team members on the same page and track.

Figure 17: On-site Billable Hours (2007 – 2016)



Source: Service Performance Insight, February 2017

4. Survey Demographics

Professional Services is one of the fastest growing segments of the global economy due in large part to the fact that companies in all other vertical industries are increasingly outsourcing and out-tasking their non-core business processes and technology to specialized consulting providers.

Today, the global professional services industry is made up of over 10 million firms with combined annual revenue of more than $4 trillion. It is also highly fragmented as the top 200 largest firms (each with more than 5,000 employees) account for less than 5 percent of that revenue. This finding has positive implications for the growth potential of professional services firms: there is room in the market for innovative and effective newcomers that can effectively harness skilled talent to provide specialized insights and knowledge.

Firms in the professional service industry provide accounting, advertising and marketing, architectural, management consulting, engineering, IT, legal, and research services. These companies provide the knowledge and skills of their employees, typically on an assignment basis, where an individual or team is responsible for the delivery of high value services to the client.

Each year Service Performance Insight has expanded vertical market coverage to include additional specialized service segments to depict the nuances and metrics which pertain to these sub-verticals. SPI's coverage this year has expanded into healthcare; Value-Added Resellers, Managed Service providers and Research and Development organizations. This year the benchmark also provides more in-depth analysis of the architecture and engineering segment. The legal industry is the only major professional services market which is not covered in this report as the requirements, processes and systems used by the legal industry tend to be very specialized.

Unlike other industries, Professional Services is almost 100% a knowledge and people-based industry. The developed regions of North America, Europe and Asia-Pacific are rich in this resource. Growth in this segment will depend heavily on concentrated efforts to attract and use skilled talent in the most proven efficient and profitable ways to sharpen the business performance of professional services firms.

For this benchmark, SPI Research surveyed 416 billable Professional Services Organizations (PSOs) from September through December, 2016. The following sections outline the key markets which comprise the global professional services industry and breakdown the 2016 survey demographics in several key areas (market, organization size, and geographic region) to help PS firms compare their individual results to the benchmark.

The North American Professional Services Market

SPI Research uses the North American Industry Classification System (NAICS) to analyze the U.S. services market. The primary Professional Services designation is NAICS 54xx which defines PS sub-verticals as ***"Those in this subsector engage in business processes where human capital is the major input. These***

establishments provide the knowledge and skills of their employees, often on an assignment basis, where an individual or team is responsible for the delivery of high value services to the client. The individual industries of this subsector are defined based on the particular expertise, training and credentials of the services provider (Table 7)".

Table 7: Vertical PS Markets — the North American Industry Classification System

Code	Market	Description	US Census 2015 Revenue	Employees (1,000s)	CAGR 2014-2015
5112	Software	Software publishing, both public and private software companies. Total revenue is reported. PS typically represents ~ 20% of revenues.	$190.7B	386	3.6%
518	Data Services	Data processing, hosting and related services	$104.5B	392	5.1%
5411	Legal	This industry is comprised of legal practitioners known as lawyers or attorneys (i.e., counselors-at-law) primarily engaged in the practice of law. Firms in this industry may provide a range of expertise or specialize in specific areas of law, such as criminal law, corporate law, family and estate planning, patent law, real estate law, or tax law.	$261.0B	1,114	4.8%
5412	Accounting/ Tax Prep/ Bookkeeping / Payroll	This industry comprises establishments primarily engaged in providing services, such as auditing and accounting, designing accounting systems, preparing financial statements, developing budgets, preparing tax returns, processing payrolls, bookkeeping, and billing. Accountants are certified to ensure they have and maintain competency in their field.	$163.4B	888	10.4%
5413	Architectural, Engineering and Related Services	This industry comprises establishments primarily engaged in planning and designing residential, institutional, leisure, commercial, and industrial buildings and structures by applying knowledge of design, construction procedures, zoning regulations, building codes, and building materials.	$223.5B	1,277	-0.7%
5414	Specialized Design Services	This industry group comprises establishments providing specialized design services (except architectural, engineering, and computer systems design).	$20.98B	111	-2.3%
5415	Computer Systems Design Services Related Services	(IT Consulting) – This industry comprises establishments primarily engaged in providing expertise in the field of information technologies through one or more of the following activities: (1) writing, modifying, testing, and supporting software to meet the needs of a particular customer; (2) planning and designing computer systems that integrate computer hardware, software, and communication technologies; (3) on-site management and operation of clients' computer systems and/or data processing facilities; and (4) other professional and technical computer-related advice and services.	$351.58B	1,442	4.4%
5416	Management Science and Technical Consulting Services	(Management Consulting) – This industry comprises establishments primarily engaged in providing advice and assistance to businesses and other organizations on management issues, such as strategy and organizational planning; financial planning and budgeting; marketing objectives and policies; human resource policies, practices, and planning; production scheduling; and control planning.	$207.34B	991	11.3%
5417	Scientific Research and Develop. Services	This industry group comprises establishments engaged in conducting original investigation on a systematic basis to gain new knowledge (research) and/or the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development). The industries within this industry group are defined on the basis of the domain of research; that is, on the scientific expertise of the establishment.	$149.09B	620	0.3%

Code	Market	Description	US Census 2015 Revenue	Employees (1,000s)	CAGR 2014-2015
5418	Advertising and Related Services	(Marketing and Communications) – This industry comprises establishments primarily engaged in creating advertising or public relations campaigns and placing advertising in periodicals, newspapers, radio and television, or other media. These firms are organized to provide a full range of services (i.e., through in-house capabilities or subcontracting), including advice, creative services, account management, production of advertising material, media planning, and buying (i.e., placing advertising).	$112.76B	408	2.1%
5419	Other Professional, Scientific, Technical Services	(Other PS) – This industry group comprises establishments engaged in professional, scientific, and technical services not listed above.	$76.2B	573	7.8%
5613	Employment Services	Staffing, temporary employment, placement and employment search services	$324.7B	4,277	11.4%
	2015 Total	**US Estimated Professional, Scientific and Technical Services**	**$2.015 Trillion**	**12.479 Million**	

Source: US Census and Service Performance Insight, February 2017

Per the 2015 US Census, professional, scientific, and technical services (NAICS 54xx) revenue was $1.56 trillion, up 4.7 percent from 2014. Across the service industries, the fastest growing segments in 2015 were employment services (recruiting and staffing) 11.4%; management consulting 11.3% and accounting 10.4%. Two segments experienced market contraction from 2014 to 2015. Specialized design service revenue declined -2.3% and architectural, engineering and related services declined -.7%.

Additional industry segments which generate substantial professional service revenue include software (NAICS 5112); Data Services (NAICS 518) and Employment Services (NAICS 5613). Including these segments, the US professional service industry generated approximately $2 trillion in revenue in 2015 and employed 12.5 million US-based workers.

The US market represents roughly 50% of global professional services revenue which leads to a global revenue estimate of over $4 trillion, providing employment for over 25 million professional service workers. These figures exclude revenues and PS employees in telecommunications, financial services and healthcare services.

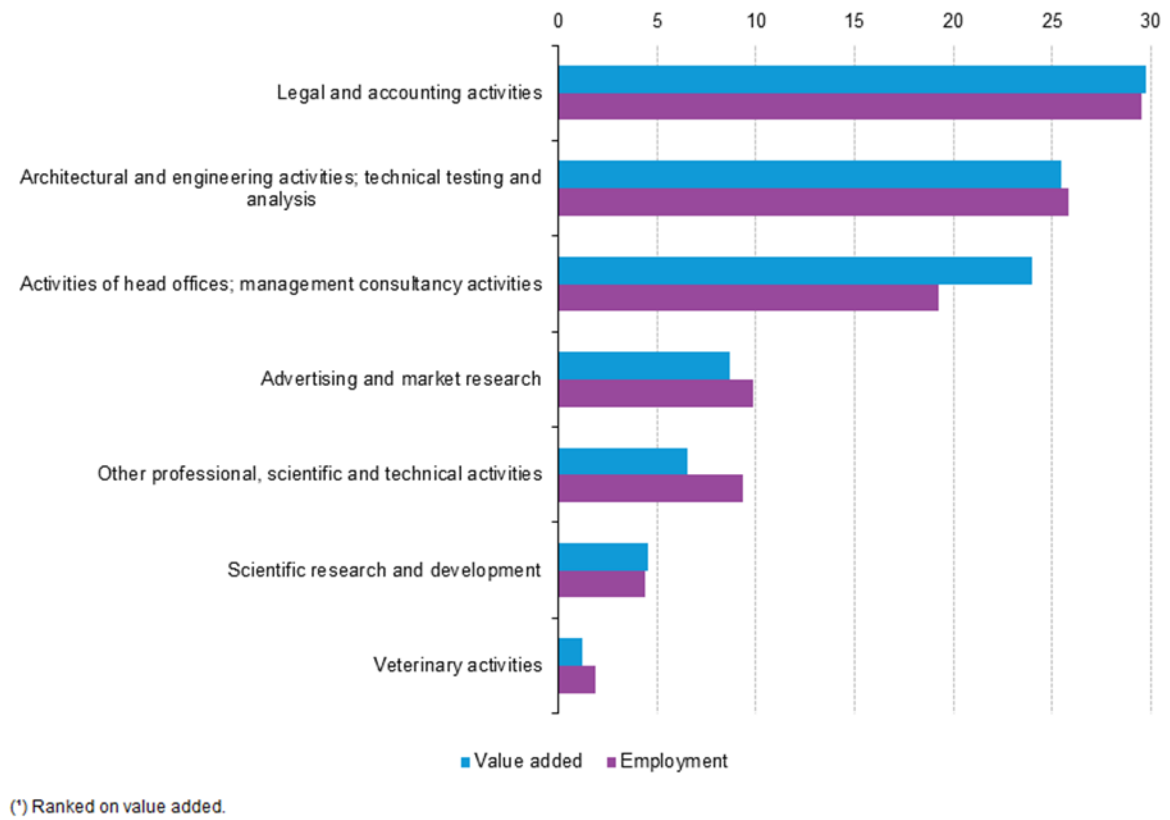
The European Professional Services Market

In 2016, for the first time since the great recession of 2008, the Eurozone economy kept pace with the U.S. For calendar year 2016, Eurozone GDP expanded at 1.7% compared to 1.6% for the U.S. showing the economy's resilience and ability to overcome the negative effects of Brexit, increased terrorism and inflation. It is too early to gauge the impact of growing protectionism, populism and political tensions which are dominating the headlines in 2017.

Two major segments make up the professional services market in Europe – professional, scientific and technical professional service organizations and computer programming and consultancy organizations. Europe boasts a strong and growing consulting market with the fastest growth occurring in technology-oriented eastern European countries due to a burgeoning supply of well-educated and technically skilled workers. Out of the 30 countries which comprise Europe, the largest producers of professional services are also the largest consumers with Germany, the UK and France in the lead.

According to Eurostat, in 2015 there were 3.9 million businesses in Europe classified as professional, scientific and technical that employed 11.5 million people. These organizations generated EUR 1.238 trillion in revenue. Within this sector, there are 726,000 management consultancies that employ 1.6 million people and generate EUR 189 billion in revenues.

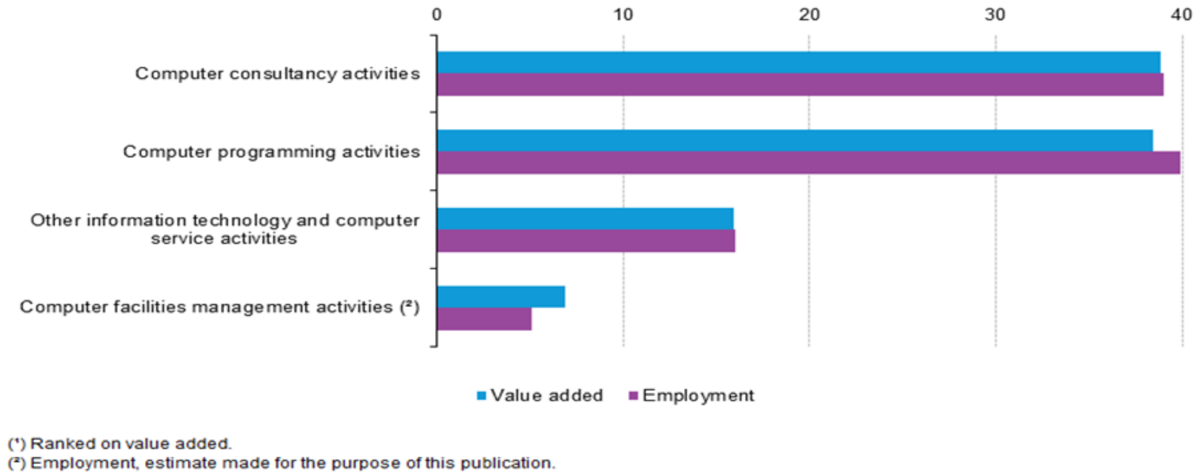
Figure 18: European Professional, Scientific and Technical Service Revenue and Employment



Source: Eurostat, 2015

In Europe additional industry segments which generate substantial professional services revenue include information and communication services of which the computer programming and consultancy sector employed 2.8 million people, or 47% of those employed in the sector as a whole in Europe. They generated EUR 420 billion in revenue, which was 35% of the information and communication services sector. All enterprise software companies include a component of professional services as do independent IT consultancies which tend to specialize by software or hardware platform and/or vertical industry.

Figure 19: European Computer Programming and Consultancy Services



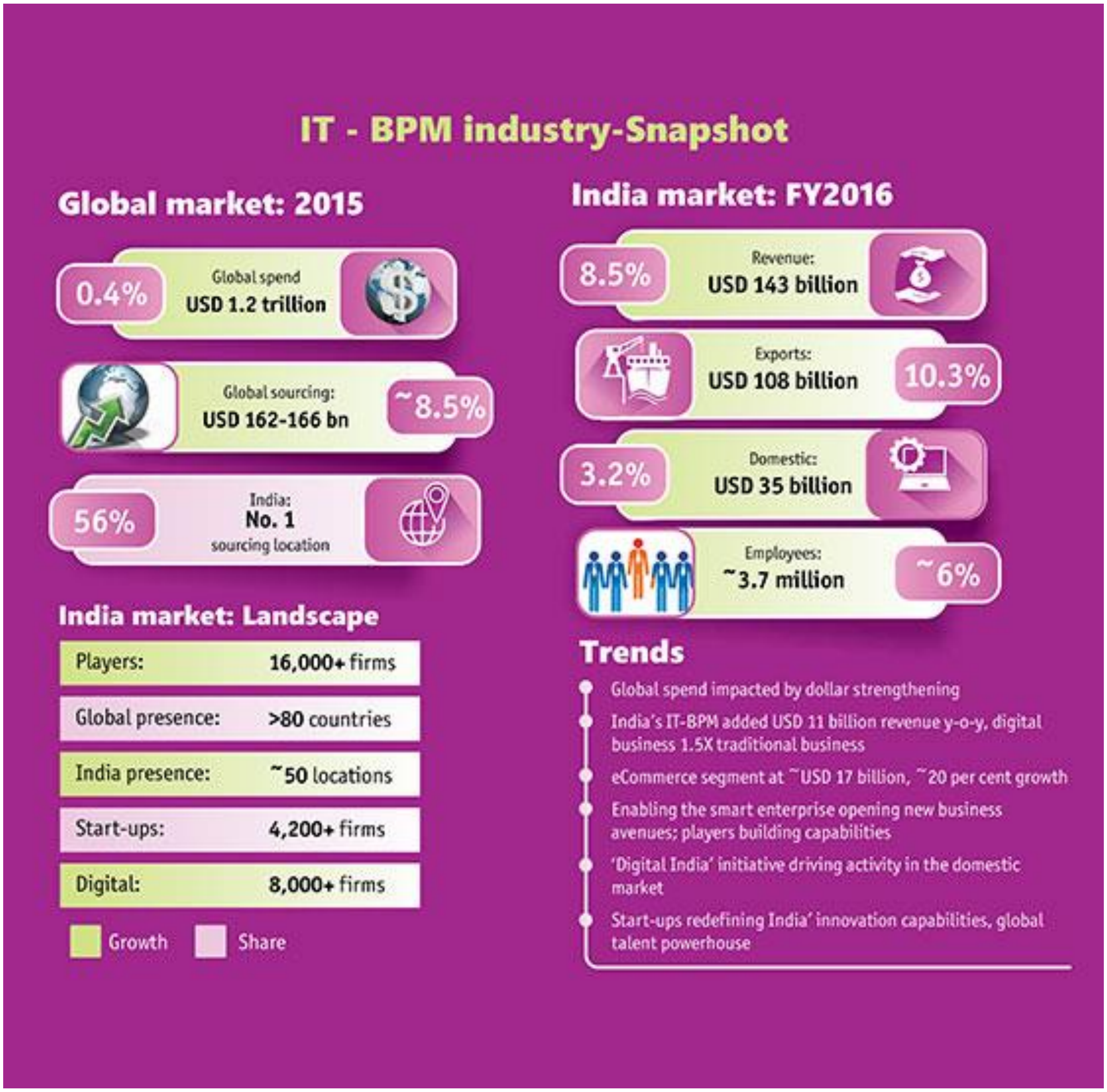
[Source: Eurostat, 2015]

The Asia-Pacific Professional Services Market

An important contributor to the Asia-Pacific (APac) economy both in terms of employment and productivity improvement, the professional services sector includes accounting, advertising and marketing, architecture, human resources, engineering, IT, management, operations, legal, and scientific research services. Across the Asia-Pacific region professional service sector employment growth and revenue impact is strong and growing:

- India has long held a leading position in technology services with revenues in excess of $150 billion ($75 billion in IT services; $28 billion in BPM; $22 billion in research and development; $17 billion in ecommerce: $14 billion in hardware and $6.5 billion in software services). India employs over 3.7 million technology service workers; ~ 35% are women. (Source: NASSCOM)
- Several regions including Singapore, the Philippines, Malaysia, New Zealand and Australia cite professional services as their fastest growing economic sector.
- China has committed in its 12th five year plan (2011-2015) to make services sector development a strategic priority with emphasis on key services sub-sectors such as **finance, logistics, education and healthcare.** (Source: China Services Brief 2011)
- Driven by the growth in IT investment and China's information sector, revenue for the IT Services industry has been growing at an annualized rate of 6.3% over the past five years. In 2014, China's IT service revenue totaled $111.7 billion, up 7.1% from 2013. (Source: IBIS)

Figure 20: India's IT Services Economy



Source: Nasscom 2016

Global IT Spending

Driven by growth in software and IT services revenue, worldwide IT spending is forecast to reach $3.5 trillion in 2017, up 2.9 percent from 2016 estimated spending of $3.4 trillion, according to the latest forecast by Gartner, Inc.

The bright spot for the IT industry has been the software and IT services segments. Software spending is projected to grow 6 percent in 2016, and it will grow another 7.2 percent in 2017 to total $357 billion (see Table 8). IT services spending is on pace to grow 3.9 percent in 2016 to reach $900 billion, and increase 4.8 percent in 2017 to reach $943 billion.

Table 8: Worldwide IT Spending Forecast (Billions of U.S. Dollars)

	2016 Spending	2016 Growth (%)	2017 Spending	2017 Growth (%)
Data Center Systems	$173	1.3	$177	2.0
Software	333	6.0	357	7.2
Devices	597	-7.5	600	0.4
IT Services	900	3.9	943	4.8
Communications Services	1,384	-1.1	1,410	1.9
All IT	**$3,387**	**-0.3**	**$3,486**	**2.9**

Source: Gartner, 2016

What's Hot and What's Not in IT

Based on a survey of 700 North American IT leaders conducted by TEK Systems, IT leaders anticipate information security (46 percent), cloud computing (38 percent), business intelligence and big data analytics (28 percent) will have the biggest impact on their business. Networking has slipped from being viewed as the third-most impactful area to tenth position this year. Sixty-five percent of IT leaders expect to increase their spending on security in 2017. Cloud represents another big investment, with 3 in 5 IT leaders expecting to increase spending. Digital marketing is also a big growth area.

Table 9: IT Technology Impact Stack Ranking

IT Technology Impact Ranking	2015	2016	2017
Security	**1** (52%)	**1** (47%)	**1** (46%)
Cloud computing	**5** (29%)	**4** (26%)	**2** (38%)
Business intelligence / big data	**2** (41%)	**2** (31%)	**3** (28%)
Digital marketing / customer experience	-	**7** (22%)	**4** (26%)
Enterprise resource planning	**4** (31%)	**8** (20%)	**5** (21%)
Virtualization / software-defined networks	**7** (21%)	**6** (26%)	**6** (21%)
Mobility	**3** (36%)	**5** (26%)	**7** (19%)
Digital transformation*	-	-	**8** (18%)
Data center consolidation	**6** (24%)	**11** (13%)	**9** (18%)
Networking	-	**3** (30%)	**10** (17%)
IoT	**8** (16%)	**9** (14%)	**11** (14%)
Consumerization of IT / BYOD	**9** (13%)	**10** (14%)	**12** (8%)

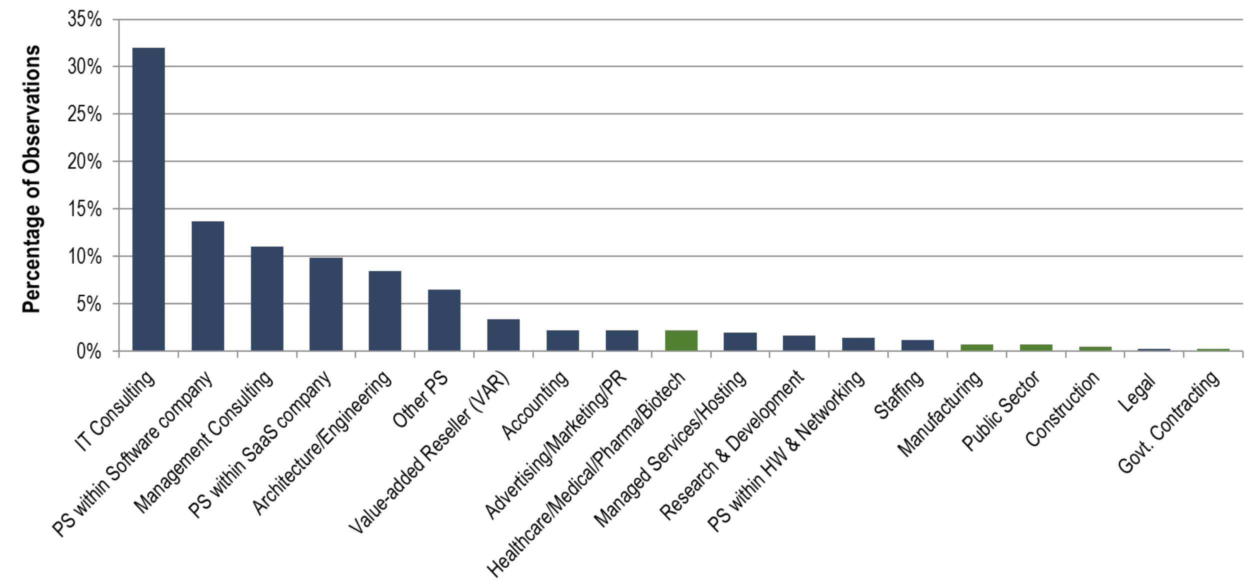
Source: *TEK Systems Annual IT Forecast, 2017*

PS Maturity™ Benchmark Vertical Market Demographics

The 2017 PS Maturity™ benchmark is the most comprehensive global study of the professional services industry as it is based on 416 participating organizations representing over 200,000 consultants. The percentage of completed surveys representing the top fourteen vertical market segments is as follows:

- Δ ***IT Consulting***: Systems Integrators and developers – 32.0%, 133 firms representing ~ 63,000 consultants;
- Δ ***Software PS***: Service divisions within software companies – 13.7%, representing 57 firms and ~ 32,000 consultants;
- Δ ***Management Consulting***: Management consultancies – 11.1% representing 46 firms and ~ 15,000 consultants;
- Δ ***SaaS PS***: Service divisions within software-as-a-service providers – 9.9% representing 41 firms and ~ 9,000 consultants;
- Δ ***Architects and Engineers***: Architects and engineers – 8.4% representing 35 firms with ~ 23,000 architects and engineers;
- Δ ***Other PS***: business optimization, training – 11.1% representing 46 firms and ~ 42,000 consultants; "Other PS" includes other types of PSOs such as legal, healthcare, government contracting, construction, public sector and organizations that did not squarely fit into other specific professional services verticals.
- Δ ***Value-Added Resellers:*** resell hardware, software and provide technology services, training and support – 3.4% representing 14 firms with ~ 1,000 consultants;
- Δ ***Healthcare –*** Medical; Pharmaceutical; Biotech – 2.2% representing 9 firms
- Δ ***Accountancies:*** Accounting firms – 2.2% representing 9 firms with ~ 3,000 accountants and auditors;
- Δ ***Marketing and Advertising***: Advertising, marketing, communication firms – 2.2% representing 9 firms and ~ 1,000 consultants;
- Δ ***Managed Services:*** Provide hosting and managed and outsourced services – 1.9% representing 8 firms with ~2,000 consultants;
- Δ ***Research and development:*** provide research and development services – 1.7% representing 7 firms with ~ 11,000 consultants
- Δ ***Hardware (and Networking) PS***: Service divisions within hardware and networking manufacturers – 1.4% representing 6 firms with ~ 5,000 consultants;
- Δ ***Staffing***: Recruiting, provide temporary resources and consultants – 1.2% representing 5 firms and ~ 1,000 consultants.

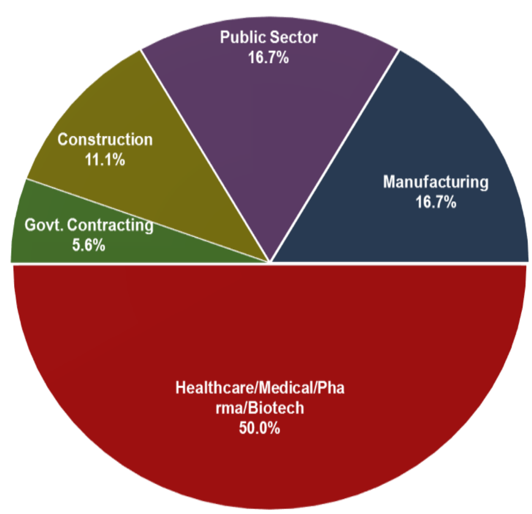
Figure 21: Vertical Market Distribution



Source: Service Performance Insight, February 2017

This year SPI Research added new "project-driven" organizations in manufacturing, public sector, construction and government contracting that deliver professional services. They are listed above in the "Other PS" category, but represent an important part of the market. Non-NAICS markets have started to embrace selling and delivering project-based services to improve customer adoption and provide new sources of revenue. They use many of the same methodologies and tools to successfully deliver projects as more traditional consulting organizations. While this is the first year SPI Research specifically began to segment these markets, they could become more important for this research going forward. Figure 22 highlights new vertical markets included in this year's study, which include:

Figure 22: Non-traditional PS Markets Surveyed



Source: Service Performance Insight, February 2017

- ***Manufacturing***: 0.7% representing 3 firms with ~ 9,000 project-based professionals;
- ***Healthcare/Medical/Pharma/Biotech***: 2.2%% representing 9 firms with ~ 10,000 project-based professionals;
- ***Government Contracting***: 0.2% representing 1 firm with ~ 1,000 project-based professionals;
- ***Construction***: 0.5% representing 2 firms with ~ 100 project-based professionals;
- ***Public Sector***: 0.7% representing 3 firms with ~ 10,000 project-based professionals.

Table 10 shows participant demographics for the past ten years. For the past four years, IT consultancies have been the largest participating market, closely followed by PS within software firms.

Table 10: Number of Participating Firms by Vertical Market (2007 through 2016)

Market	Type	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
IT Consulting	PSO	13	24	50	67	61	69	115	86	190	133	**808**
PS within Software	ESO	34	66	89	57	56	45	45	47	89	57	**585**
Mgmt. Consulting	PSO	2	12	22	22	31	34	24	27	68	46	**288**
Other PS	PSO	2	13	30	22	13	31	21	24	13	46	**215**
PS within SaaS	ESO	0	0	18	19	26	23	16	13	43	41	**199**
Arch./Engr.	PSO	0	0	4	6	7	8	6	10	50	35	**126**
PS within Hard./Net.	ESO	1	3	12	9	10	9	4	4	16	6	**74**
Advertising	PSO	0	0	0	6	10	11	6	4	12	9	**58**
Accounting	PSO	0	0	0	6	2	4	1	5	13	9	**40**
Value-Added Res.	ESO	0	0	0	0	0	0	0	0	14	14	**28**
Mgd Services/ Host.	ESO	0	0	0	0	0	0	0	0	17	8	**25**
Research & Dev.	PSO	0	0	0	0	0	0	0	0	15	7	**22**
Staffing	PSO	0	0	0	0	0	0	0	0	9	5	**14**
Total		**52**	**118**	**225**	**214**	**216**	**234**	**238**	**220**	**549**	**416**	**2,482**

Source: Service Performance Insight, February 2017

Tables 11 and 12 further analyze the survey demographics by vertical market, highlighting the markets surveyed. According to this year's survey, staffing organizations reported the highest year over year PS revenue growth at 16.3%. PS within SaaS organizations continue their high growth trajectory with year over year PS revenue growth of 12.7%, closely followed by VARs (Value-added resellers) at 11.1% and IT consultancies at 10.6%. Overall PS revenue grew at 9% in 2016, down significantly from last year's growth of 10.2% and the first-time PS sector growth has dropped below 10% since the recession. Based on completed surveys from 2,482 PS organizations, PS revenue growth for the past five years has averaged 10%. Over the same five-year period, these firms have increased PS headcount by 7.6%. Across the PS industry, annual revenue growth is always higher than PS headcount growth which means firms become more productive as they scale while the overall PS industry continues to ratchet up productivity.

Table 11: 2016 Demographics by Vertical Market

Demographic	IT Consult.	Software	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.
Number of firms reporting	133	57	46	35	41	8
Average Size of PSO (employees)	476	558	323	650	213	262
Annual company revenue ($mm)	$152.0	$380.5	$120.7	$116.6	$162.7	$128.8

Demographic	IT Consult.	Software	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.
Professional service revenue ($mm)	$78.1	$86.9	$61.1	$113.0	$26.8	$63.8
PS percentage of total revenue	51.4%	22.8%	50.6%	96.9%	16.4%	49.5%
Year-over-year change in PS revenue	10.6%	7.0%	7.1%	5.5%	12.7%	3.8%
Year-over-year change in PS headcount	8.3%	2.9%	1.6%	5.9%	10.6%	5.0%
% of employees billable or chargeable	75.2%	75.0%	76.4%	76.0%	72.7%	71.3%
% of PS revenue delivered by 3rd-parties	13.5%	9.1%	11.1%	11.4%	11.0%	5.9%
M&A over the past 3 years	0.73	1.83	0.49	0.50	1.59	0.88

Source: Service Performance Insight, February 2017

Research and development organizations represented the largest organizations with PS headcount of 1,586; followed by hardware and networking organizations with 863 PS employees. VARs reported the smallest average PS headcount at 83 with PS revenues averaging $13.8M. Architecture and engineering firms reported the highest percentage of total revenue from PS at 96.9%. For PS organizations within SaaS and Software companies, professional services represented 16% and 22% respectively of overall revenue. Although charter conflict abounds for embedded PS organizations within product companies, PS is now seen as a major catalyst for client adoption and satisfaction. As products move through the technology adoption lifecycle, top-line product revenue growth inevitably slows, making support, managed services and professional services more important contributors of revenue and margin.

Table 12: Demographics by Vertical Market Continued

Demographic	Hardware /Network.	R&D	VAR	Acct.	Advert. (Marcom)	Staff.
Number of firms reporting	6	7	14	9	9	5
Average Size of PSO (employees)	863	1,586	83	383	113	98
Annual company revenue ($mm)	$825.8	$177.9	$36.8	$180.0	$30.3	$22.5
Professional service revenue ($mm)	$227.1	$132.1	$13.8	$136.4	$29.7	$8.0
PS percentage of total revenue	27.5%	74.3%	37.4%	75.8%	97.9%	35.6%
Year-over-year change in PS revenue	7.9%	5.4%	11.1%	9.4%	4.7%	16.3%
Year-over-year change in PS headcount	4.6%	2.1%	4.1%	2.2%	6.1%	9.0%
% of employees billable or chargeable	83.3%	59.3%	72.9%	79.4%	76.3%	77.0%
% of PS revenue delivered by 3rd-parties	17.1%	8.2%	7.1%	9.2%	10.6%	4.5%
M&A over the past 3 years	3.08	0.93	0.92	1.11	0.50	0.20

Source: Service Performance Insight, February 2017

Table 13 compares demographic information for embedded (ESO) versus independent PSOs and by geography. The size of the embedded (ESO) is slightly larger (531 PS employees) than independents (PSOs) (483), however, the benchmark is dominated by independents (272 out of 416 participating firms) ESOs and PSOs experienced almost the same revenue growth (9% and 8.9%) however independents added slightly more headcount (6.5% compared to 6.3% for ESOs).

Table 13: Demographics by Organization Type and Geographic Region

Key Performance Indicator (KPI)	2016	ESO	PSO	Americas	EMEA	APac
Number of firms reporting	416	144	272	306	81	29
Average Size of PSO (employees)	499	531	483	465	640	469
Annual company revenue ($mm)	$197.9	$295.9	$146.1	$215.6	$178.5	$67.0
Professional service revenue ($mm)	$85.8	$82.8	$87.5	$84.2	$113.9	$24.7
PS percentage of total revenue	43.4%	28.0%	59.8%	39.0%	63.8%	36.8%
Year-over-year change in PS revenue	9.0%	9.0%	8.9%	8.6%	10.3%	9.4%
Year-over-year change in PS headcount	6.5%	6.3%	6.5%	6.1%	7.7%	7.1%
% of employees billable or chargeable	74.6%	74.7%	74.6%	75.4%	72.7%	72.4%
% of PS revenue delivered by 3rd-parties	11.4%	10.3%	12.0%	11.0%	11.7%	14.2%
M&A over the past 3 years	1.02	1.55	0.74	1.12	0.94	0.10

Source: Service Performance Insight, February 2017

By geography, EMEA experienced the greatest growth followed by APAC, with North America experiencing the least growth in both revenue and headcount. Reversing last year's downward trend, EMEA reported the largest firms (640 PS employees) and the strongest revenue and headcount growth. The Americas showed the highest percentage of billable employees, which means lower management and non-billable overhead. APAC relied the most heavily on third parties for additional revenue (14.2%). The Americas reported the highest level of merger and acquisition activity with the 306 Americas headquartered organizations reporting over 350 acquisitions.

By organization size, the smallest organizations grew the least while the largest organization grew the fastest and added the most PS headcount (Table 14). The smallest organizations experienced the fewest mergers and acquisitions while the largest experienced the most; they also relied the most heavily on subcontractors to generate revenue. In the high-growth professional services world, mergers and acquisitions are increasingly seen as the fastest way to augment growth and to expand into hot new service and technology segments. Increasingly, the largest firms are augmenting their capabilities in SMAC (Social, Mobile, Analytics and the Cloud) while also providing more strategic and industry-focused practices.

Table 14: Demographics by Organization Size

Key Performance Indicator (KPI)	Under 10	10 - 30	31 – 100	101 - 300	301 - 700	Over 700
Number of firms reporting	39	86	128	89	25	49
Average Size of PSO (employees)	5	20	65	200	500	3,412
Annual company revenue ($mm)	$5.7	$48.6	$81.3	$203.7	$342.0	$832.1
Professional service revenue ($mm)	$2.5	$5.2	$16.2	$45.9	$109.0	$535.2

Key Performance Indicator (KPI)	Under 10	10 - 30	31 – 100	101 - 300	301 - 700	Over 700
PS percentage of total revenue	43.5%	10.6%	19.9%	22.6%	31.9%	64.3%
Year-over-year change in PS revenue	7.4%	8.2%	9.3%	8.0%	11.0%	11.4%
Year-over-year change in PS headcount	0.9%	4.9%	6.5%	7.1%	9.6%	10.6%
% of employees billable or chargeable	71.8%	77.4%	74.3%	74.5%	75.8%	72.8%
% of PS revenue delivered by 3rd-parties	10.8%	13.1%	9.2%	10.6%	15.7%	13.6%
M&A over the past 3 years	0.32	0.39	0.63	1.04	1.64	3.29

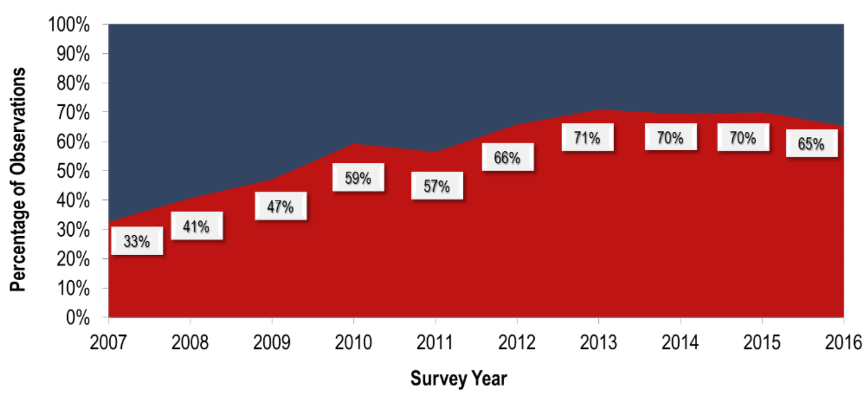
Source: Service Performance Insight, February 2017

PSO Type

Many of the concepts and uses of professional services described in this report also exist within product-driven organizations. Thus, Service Performance Insight uses the term "embedded service organization" (ESO) to describe the rapidly expanding market for service organizations within product companies. Within professional services, the fastest growing segment is software and IT services. There are more than 100,000 software and IT services companies in the United States, and more than 99 percent are small and medium-sized firms (i.e., under 500 employees). This total includes software publishers, suppliers of custom computer programming services, computer systems design firms, and facilities management companies. This segment of the PS industry draws on a highly educated and skilled US-based workforce of nearly two million people.

SPI Research analyzes billable PSOs in several ways with a focus on two macro segments – independents and embedded PS organizations:

Figure 23: Independent vs. Embedded Survey Orgs Surveyed (2007 – 2016)



Source: Service Performance Insight, February 2017

- ***Independent Professional Services Organizations (PSOs)***: Independent PSOs sell, deliver, and invoice for professional services to external clients. Clients hire systems integrators, IT consultancies (SIs) and Value-Added Resellers (VARs) to implement or integrate technology based on their strategic competence or specialized industry or product knowledge. Clients hire management consultancies to provide strategic insight, guidance, facilitation and coaching. Independent PSOs typically provide expertise, knowledge, skills and business practices that are more specialized than those found within internal organizations. In this study a majority of the independent PSOs were IT consultancies, Systems Integrators (SIs) or VARs, with the remainder representing Management Consultancies (MCs), Accountants, Marketing and Advertising and Architects and Engineers. Healthcare services including staffing; management consulting;

technology and business process consulting represent one of the fastest growing sectors as the healthcare industry is forced to automate and improve patient reporting. The participating PSOs represented a broad spectrum from some of the largest independent service providers in the world to extremely small, independent regional and specialty service providers. The vast majority of responding independent PSO's are privately held.

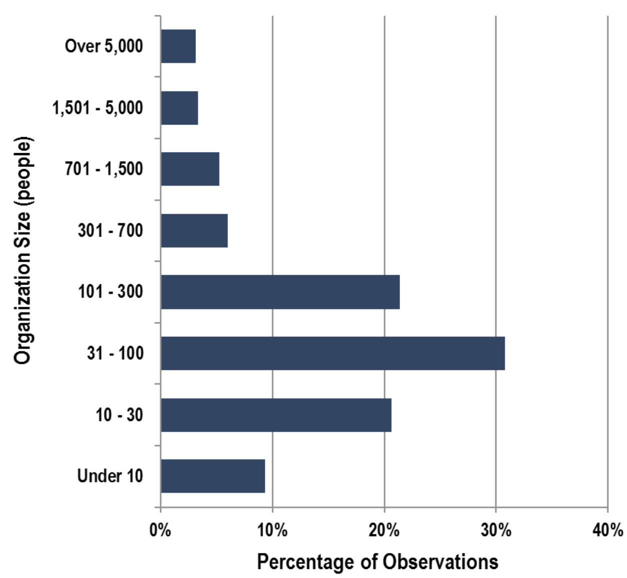
- ***Embedded Services Organizations (ESOs)***: ESOs operate much like PSOs; however, they are part of a product-driven organization. The majority of ESO participants focus exclusively on their company's own technology but many of the largest ESOs like IBM and HP services provide global IT consulting, managed services and outsourcing not associated with their company's products. For the small to mid-size ESOs, their primary charter is to successfully implement their company's products. Increasingly the charter of embedded PS has expanded to include client adoption with a focus on reducing time to value. While they are focused on professional service revenue and profit, they are often asked to perform non-billable presales, proof of concept and customer satisfaction services at little to no charge. They enable external clients but must also support internal sales, support and engineering constituencies. At maturity levels 1 and 2, their primary focus is on project delivery and building a reference base. For ESOs, lead generation, marketing and sales are primarily provided by the product sales organization. In this survey a majority of the ESOs were part of independent software vendors (ISVs) who primarily provide on-premise software however the percentage of respondents representing SaaS (cloud) providers is rapidly expanding. Almost all legacy on-premise software providers are moving to the cloud. SPI Research shows both on-premise and SaaS results.

SPI Research uses this segmentation because independent consultancies must fund sales and marketing and back-office operations for finance, operations, facilities, IT and recruiting in a way that embedded organizations generally do not. Independents incur a higher cost of operation than captive (embedded) organizations do. However, the following chapters will demonstrate independent PSOs generally outperform their embedded counterparts because their sole focus is on delivering high-quality services at a profit. Independents generally are focused on client delight and service revenue and profit growth, versus embedded where the goals of delivering profitable services may be subordinate to customer product adoption and driving incremental product sales.

Organization Size

The average size organization in the Professional Services Maturity™ Benchmark has grown, from 211 employees in 2012, to 499 in this year's survey. This year's survey is based on firms who employee more than 200,000 consultants worldwide making it the most comprehensive study of the Professional Service industry.

Figure 24: Organization Size



Source: Service Performance Insight, February 2017

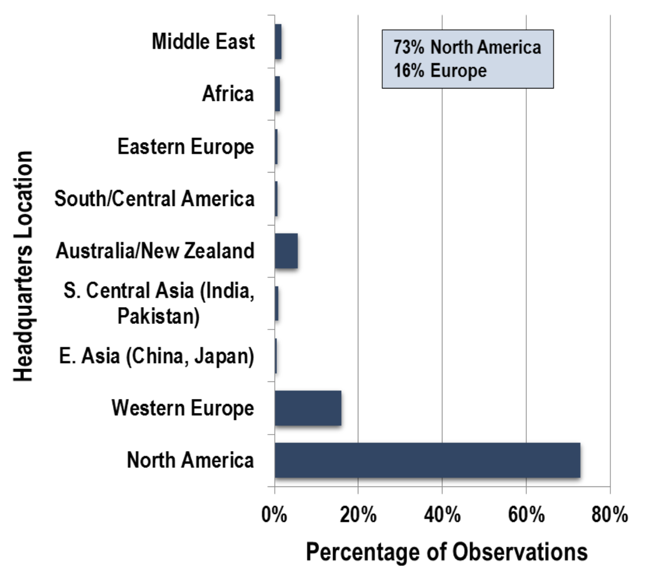
Figure 24 highlights survey distribution by PS headcount. The largest percentage of firms have between 31 and 100 employees, which has been the case for several years now. Embedded services organizations average 531 PS employees whereas independents averaged 483. Firms headquartered in EMEA averaged 640 PS employees; the Americas averaged 465 and Asia-Pacific averaged 469 PS employees per firm.

Both Software and SaaS PS organizations averaged more than 580 PS employees, highlighting the importance of embedded PS within these organizations. IT consultancies (573) and Management consultancies (255) also had a substantial PS workforce.

Headquarters Location

Service Performance Insight works with professional service organizations from around the world, and encourages them to participate in the benchmark survey. Survey participation from firms headquartered outside of North America, (Europe, Middle East, Africa (*EMEA*) and Asia-Pacific (*APac*)) is almost 30%, as the Professional Services Maturity™ Benchmark continues to gain global popularity (Figure 25).

Figure 25: Headquarters Location – Region



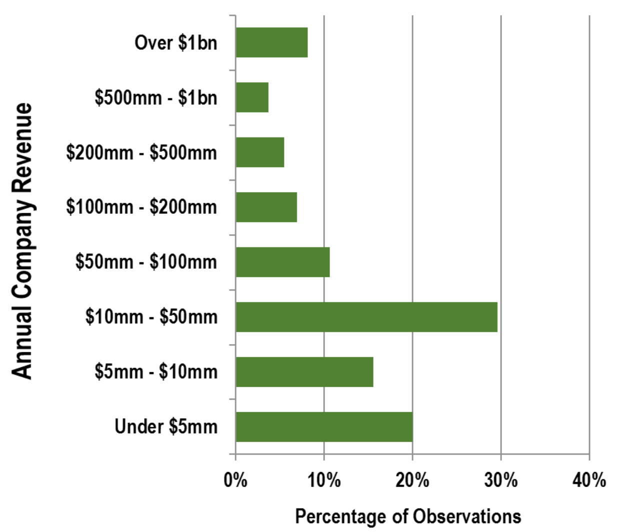
Source: Service Performance Insight, February 2017

It is important to note that regardless of where the organization has its headquarters, a significant number of employees may reside outside of the headquarter country. This is especially true for larger organizations. Therefore, the benchmark truly reflects global organizations with a worldwide PS workforce.

Total Company Revenue

In this survey, many of the PS organizations are part of a larger enterprise that also sells a variety of other products and services. Many of the independent professional service providers also sell products or the responding group is an individual practice within a larger firm. Many technology service organizations have multiple lines of business which may include management consulting, managed services, outsourcing and staffing. Therefore, it is important to note total annual company

Figure 26: Total Company Revenue



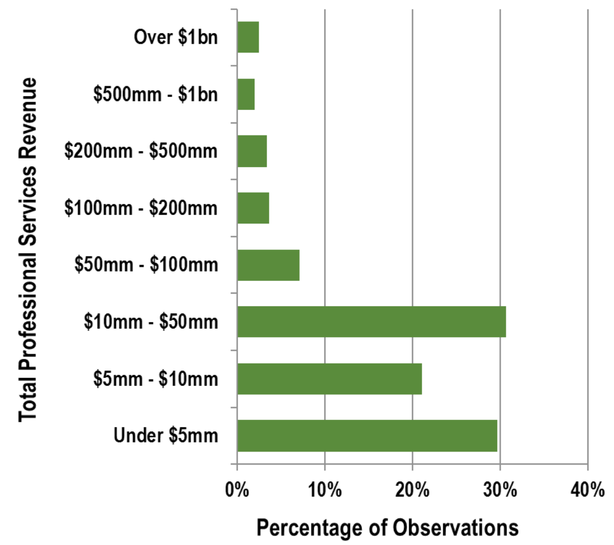
Source: Service Performance Insight, February 2017

revenue. In this year's survey the average organization generated $197.9 million in total revenue including $85.8 million in PS revenue. It is important to note that the percentage of total revenue produced by PS increased to 43% this year, reflecting the predominance of independent consultancies and the increase in PS revenue as a percentage of total revenue produced by embedded service organizations.

Total PS Revenue

Figure 27 shows 80% of the organizations surveyed have professional services revenue of less than $50 million. The global PS market is primarily comprised of firms with less than $50 million in revenue, but SPI Research works especially hard to survey larger professional services providers to better understand the dynamics impacting their business and how they can improve organizational performance.

Figure 27: Total Professional Services Revenue



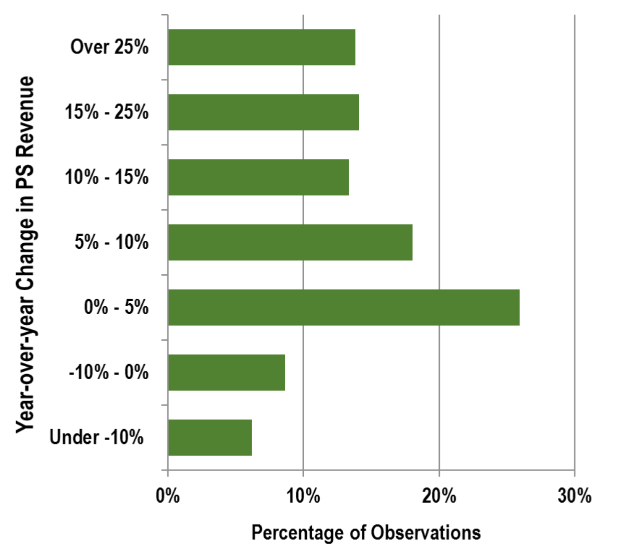
Source: Service Performance Insight, February 2017

Embedded PSOs averaged $82.8 million in PS revenue and the independents averaged $87.5 million. The average across all 416 participants was $85.8 million compared to $81 million in 2015 and $55 million in 2014. In this year's survey firms headquartered in EMEA ($113.9 million) were larger than those located in North America averaging $84.2 million and APac averaging $24.7 million.

Year over year change in PS Revenue

2016 marks the first year since 2010 that professional service revenue growth has averaged less than 10%. 30% of the firms grew revenues by over 15% (Figure 28). 15% of the firms grew revenues by over 25% in 2016.

Figure 28: Year-over-Year Change in PS Revenue



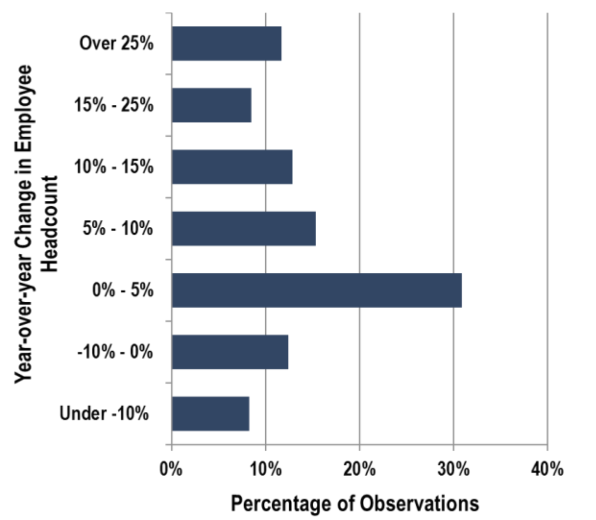
Source: Service Performance Insight, February 2017

Independent providers averaged 8.9% revenue growth whereas embedded service providers grew at 9%. The largest firms (with more than 700 PS employees) grew the fastest at 11.4% closely followed by firms with 300 to 700 PS employees who grew at 11%. All other size PSOs grew at less than 10%. It is important to note that revenue growth in 2016 slowed across most segments and sizes of organizations, indicating overall PS revenue growth is slowing. This is an important metric to watch as growth in the sector may be entering a new phase of less than 10% revenue growth, leading to greater consolidation and potentially price erosion. The professional services market can absorb growth rates of 5% to 10% through efficiency gains and better management of external subcontractors without significant increases in hiring. However, when growth rates rise above 10%, professional services organizations must add full-time employees.

Year-over-year change in PS Headcount

Figure 29 shows that year-over-year changes in headcount mirror that of professional services revenue growth rates, with larger firms and cloud- based ESOs leading the way. Surprisingly, these two sectors were the only ones that reported headcount growth in excess of 10%. Combined with significantly lower revenue growth, lackluster headcount growth is an ominous sign of slower overall professional services industry growth. This year the average headcount growth was only 6.5%. Over the past 10 years of surveying this is the lowest headcount growth reported except for in the depths of the recession (2009) when headcount growth dipped briefly to 2.8%. Every year SPI Research has surveyed, reported revenue growth has been higher than employee headcount growth, as professional services organizations are very attuned to operational efficiency. The Americas experienced the least headcount growth at 6.1%; APAC reported 7.1% with EMEA experiencing the most PS employment growth at 7.7%.

Figure 29: Year-over-Year Change in PS Headcount

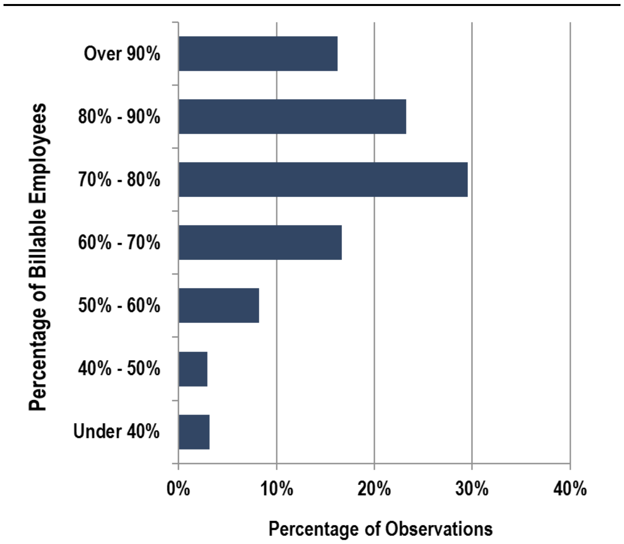


Source: Service Performance Insight, February 2017

Percentage of Employees Billable or Chargeable

In this year's survey SPI Research found the percentage of billable employees (74.6%) increased significantly from 70.4% reported in 2015. Figure 30 highlights the majority of organizations now have over 70% of their employees in billable roles. Obviously, this has a

Figure 30: Percentage of Employees Billable



Source: Service Performance Insight, February 2017

direct correlation with increased profitability. However, professional services organizations should not try to drive this number much over 80%, as the lost overhead serves valuable functions in management, sales, marketing, operations and IT. Keeping the organization balanced, which SPI Research believes is 75 to 80% billable headcount, should yield solid results.

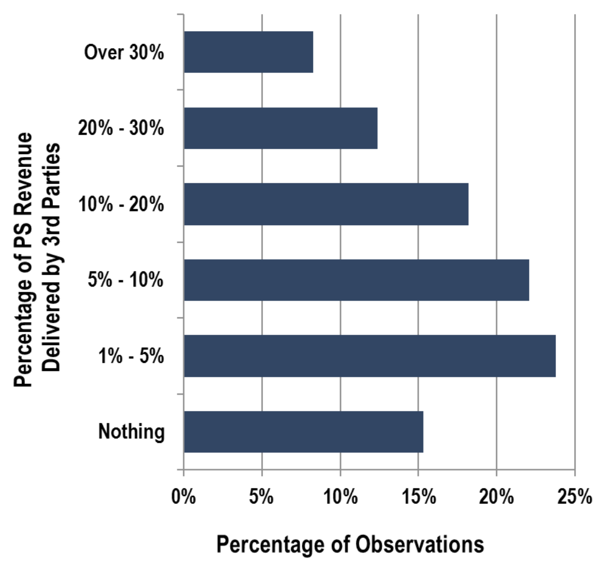
Excessive non-billable headcount creates a top-heavy organization or is a symptom of poor sales and marketing effectiveness and/or poor systems. But as in all things PS, there is a delicate balance that must be maintained. Non-billable headcount and time is a necessary component of leadership and developing infrastructure, systems and tools which support growth, consistency and quality.

Independents averaged 74.6% billable, whereas the embedded service providers averaged 74.7%. These figures were fairly consistent across all sizes of organizations. The Americas region led the way with 75.4% of their employees billable compared to 72.4% in Asia-Pacific and 72.7% in EMEA.

Percentage of PS Revenue Delivered by Third Parties

Figure 31 shows the distribution of survey responses in terms of the amount of revenue generated by third-party resources. The average percent of PS revenue generated by subcontractors was 11.4%, up slightly from 10.4% in 2015. This figure has remained fairly constant between 11% and 13% for several years. This year ESO revenue delivered by third parties averaged 10.3%, up slightly from 2015. Independents generated 12% of revenue from subcontractors. The largest organizations grew the fastest and they also used the highest percentage of third-party resources. Organizations with over 700 PS employees derived 13.6% of revenue from third-party resources. By geography, APAC generated the most third-party revenue at 14.2%; EMEA generated 11.7% and the Americas generated the least at 11%. With the new wave of political protectionism, it will be interesting to see how offshore and H1B subcontractors are impacted.

Figure 31: Percentage of PS Revenue Delivered by 3rd-parties



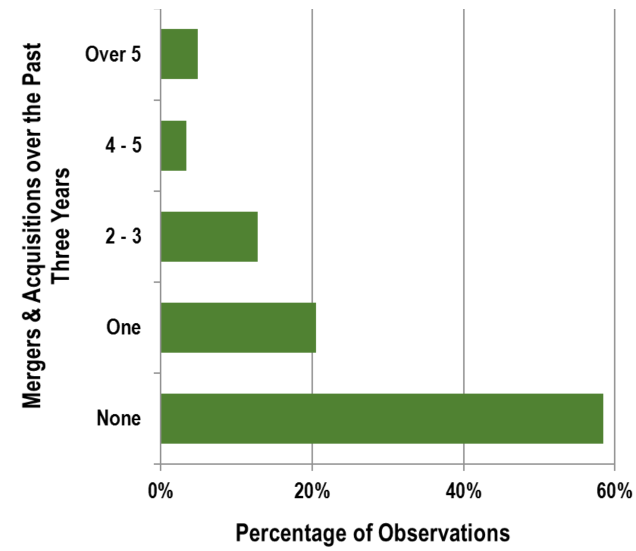
Source: Service Performance Insight, February 2017

Subcontractors are a valuable tool to help manage variability in services supply and demand. Their bench cost is minimal, if anything, when they are not working. And they provide a valuable incremental workforce to augment the employee work base when work picks up.

Mergers and Acquisitions over the Past Three Years

Four years ago SPI Research began tracking the number of mergers and acquisitions organizations have been involved in (either as the acquirer or acquired). Software and SaaS firms lead the way in acquisitions. Traditional companies like Oracle, SAP and Microsoft, who generate the majority of technology profits, regularly buy up the highfliers in new market segments. But just as soon as today's rising stars are acquired new ones emerge with better, faster and more innovative technology and expertise…and so it goes.

Figure 32: Three-year Mergers & Acquisitions



Source: Service Performance Insight, February 2017

The number of mergers and acquisitions remained steady this year with 1.02 per organization. The 141 embedded service organizations averaged 1.55 mergers and acquisitions this year while independents reported .74. As one might expect, larger organizations reported more merger and acquisition activity. Organizations with over 700 PS employees averaged almost 3.29 acquisitions. The Americas averaged 1.12, EMEA averaged 0.94 and APAC 0.1. In this year's report, SPI Research found Software and SaaS organizations experienced the most mergers and acquisitions (1.59 and 1.83 respectively) while staffing firms experienced the least (0.20).

Please refer to Equiteq's Global Consulting M&A report 2016 for an overview of consulting M&A activity including deal structure and revenue and EBITDA multiples. According to Equiteq, (consulting industry merger and acquisition specialists) 2,418 acquisitions by 1,186 different buyers occurred across the global consulting industry in 2015. North American firms led the buying frenzy with 1,197 deals reported; followed by Europe with 813 deals and Asia-Pacific with 310. Average deal values, shown as a multiple of trailing twelve month revenues, reached 1.15X in North America while deal values were .72X in Europe and .9X in Asia-Pacific. The Big 5 consulting organizations (Accenture, Deloitte, PWC, EY and KPMG) are the most prolific acquirers, with Accenture acquiring 18 firms in 2015. Although high quality firms with strong revenue growth and profits are always acquisition targets, the hottest sectors for M&A activity are: Strategy consulting; Compliance, regulation and governance; Big Data/Analytics; Cloud; Digital marketing; Property and real estate advisory and interim management. 35% of the over 2,000 consulting acquisitions reported were under $5 million and 70% were under $40M, reflecting the fact that the vast majority of consulting firms are small with revenues below $100 million.

Table 15: Consulting Sector Merger and Acquisition Activity and Deal Multiples

Demographic	Deal Value Revenue Multiples	Public Deals EBITDA Multiples	2015 Number of Deals
Management Consulting	1.2X	10.7X	502
IT Consulting	0.8X	10.9X	690
Media	1.0X	8.6X	625
Engineering	0.7X	8.2X	356
HR	0.4X	11.4X	245
Total			**2,418**

Source: Equiteq 2016 Global Consulting M&A Report

Mergers and acquisitions can provide a viable PS growth formula as they can bring new clients, ideas, skills and competencies. But deal structure is very important to ensure that the rainmakers, visionaries and subject matter experts who founded and grew the firm stay and contribute after the acquisition. A key ingredient of acquisition retention is to move quickly to a common business application infrastructure to ensure all employees have visibility to the business and how they can contribute. Another best practice in people-based businesses is to move quickly to consolidate finance, operations and human resources as these important functions can drive standardization in measurements, finance, reporting, job profiles and compensation. Typical consulting leader earn outs are three years, meaning the leaders must stay past the acquisition for at least three years to receive their entire earn out.

5. The Changing PS Business Model

Disruption is a fact of life. Old systems and business models fall prey to new paradigms, technologies and lower costs or better convenience. Professional services has long been the bastion of "change captains," helping organizations understand, quantify and manage disruption and change. But are we in danger of becoming anachronisms ourselves? Will billable utilization and time and materials based pricing be relegated to a long ago halcyon age when businesses could afford unlimited projects that delivered unspecified value?

Today, we see unprecedented disruption across all industries. Take a look at the turnover rate of the Fortune 1000 over the last 40 years, starting from 1973. By 1983, about one-third of these companies had fallen off the list. By 2013, 70% of the companies were replaced by new ones. This pace of change is accelerating, only a third of today's major corporations are expected to survive the next 25 years.

The current prevailing Professional Services business model is based on chargeable hours, but in the future many professional services disciplines may become commoditized by the very technologies that are making them rich today. Think of the sweeping changes that have happened to the accounting industry with Turbo Tax leading a wave of do-it-yourself tax preparation. What has happened to architects and engineers where computer-aided software and design have not only become indispensable but have also commoditized many elements of drafting and design? And what about the largest segment of the professional services industry – computer programming and consultancy? What has happened to the legions of Y2K advisers and Cobol programmers who brought our business applications into the 21st century? They have certainly given way to an army of java and UI experts who can accomplish in hours what it took programmers of yore to do in years but will they too become obsolete and out of work?

In 2017 cloud computing and the prevalence of mobile and connected devices have accelerated the shift towards the services economy, giving almost every company the opportunity to sell/upsell its customers on subscription-based offerings — creating valuable recurring revenue streams. So today, important questions for the professional services industry are:

- What will be the new professional services business model?
- What will be the primary revenue sources?
- What do firms need to do to position themselves for the future?
- What should they be doing now to anticipate and take advantage of looming changes?

Rise of the Subscription Economy

Just as the industrial revolution, with mechanized manufacturing shaped the 19th century, technology has remodeled business and society in the 21st century. Millennials, the de facto leaders in the age of digital disruption, prefer the flexibility and affordability of on-demand access over the commitment and upfront investment of owning things. Access and user experience have trumped ownership, ushering in a new wave of consumption and usage-based pricing. Today, everywhere you look, new and innovative companies are transforming products traditionally associated with ownership into services. This move to consumption-based pricing is most evident in the world of software where traditional enterprise, "all you can eat" licensing models have been disrupted by cloud per-user subscription models. Managed services allow clients to rent instead of buy technology and resources; fixed price and deliverables based contracts tie payment to outcomes.

What is wrong with today's utilization based business model?

Clearly one of the main advantages of a time and materials, billable utilization based business model is that it removes service provider risk. If an IT consultant, accountant or engineer can charge for any and all effort that goes into a project (as long as bill rates exceed costs) benefits accrue to the service provider because the work will be paid for in relation to the amount of effort (time) expended. Differences in experience and skill level are mitigated by higher bill rates charged for more experienced consultants who can presumably deliver higher quality, more complex work, and in less time. But in time and materials, utilization-based, pricing scenarios, what is the incentive for greater efficiency – to perform the same type of projects in less time or with less experienced resources? As projects and tasks become more routine, more codified and repeatable, the question of value must be addressed.

New PS Business Models Emerge

SPI Research sees new business models emerging:

- ∆ **Traditional time and materials/utilization based business model** – the majority of professional services firms still approach business the same way they always have – as a fee for services based on the amount of time and skill of the service provider. The service provider bills the actual hours worked and does not necessarily have incentive to be efficient assuming clients continue to pay and lower-priced suppliers are not as good. Clearly, clients want experienced service providers who can quickly understand their business challenges and who have worked on similar problems in the past so learning and experience can be applied to reduce time and improve results.
- ∆ **Fixed price contracts and retainers** – These companies also sell the skills and expertise of their staff but the majority of their work is done on a fixed price basis. Fixed price contracts are tied

to specific deliverables and milestones. Organizations that primarily lead with fixed price contracts (management consultancies, architects and marketing and advertising firms) may also charge an annual “retainer” to ensure they will be available when needed or to provide ad hoc inquiry support. This is an excellent business model for clients and consultants who have well-defined needs and can control the scope and outcomes of projects.

- ∆ **Shared risk – performance based** – these type of contracts are used in outsourcing and managed services where the level of service and performance can be measured. They are typically tied to “service level agreements,” which define response times and guaranteed levels of performance. Often the service provider assumes ownership of equipment (hardware and software) and personnel. Risk factors must be carefully evaluated and controlled to ensure both clients and service provider understand the scope of the service.
- ∆ **Subscription or usage based** – the concept of selling subscriptions and usage based services has transformed the technology world and ushered in the rush to the cloud. Way back in the day we used to call this “timesharing”. It turns out clients really don’t want or need to own massive data centers. It is far better to let a commercial data center supply all those servers, networks, racks of storage and security. One line of code makes it easier for application providers to continually improve functionality while providing enhancements at the same time to all. Subscriptions make life easier and less complicated. Just turn on your computer or smart phone and….voila! your application is ready and waiting for you! Making the switch to subscription-based recurring revenues is an enormous undertaking. Control shifts to the user to start and/or stop using the service. Recurring revenues only continue if the service provided is valuable and used.

The Advantages of a Subscription-Based Service Model

To create a lasting business model, both the service supplier and service buyer must receive value. Here are a few of the advantages of moving to a subscription-based service model:

- ∆ **Financial Security** – recurring, predictable revenue streams. As long as the agreement cannot be cancelled at a moment’s notice, the service provider is able to predict and forecast the lifetime value of the contract. Armed with this information, the service provider can estimate the level of effort and determine a suitable cost structure to be able to produce a high level of service, with profit and predictability built in.
- ∆ **Flexibility** – subscriptions describe a basic level of service with “premium” up charges for higher levels of service. Uber “black” means you get to ride (and pay a premium) in a limo versus Uber “pool” sharing the ride and route with strangers. In combination with time and materials, project-based pricing, new services and requirements can be discovered and priced. If they catch on, they can become part of next year’s contract.
- ∆ **Shared value** – one of the nicest surprises about subscription-based pricing is it puts both buyer and service supplier on the same team. The service supplier has a vested interest in ensuring the service delivered is of high quality because recurring revenue only accrues when the service is used, adopted and renewed. The service consumer, in turn, must be loyal and give up some level of anonymity as usage statistics help the service provider improve or tailor the service to

make sure it is fully used. Everyone benefits from feedback and incremental users because the service improves as it scales and gets better for all subscribers.

- **Accountability** – the subscription model is not about selling a project, delivering it and moving on to the next client. It facilitates a deeper, mutually beneficial relationship. Trust must be built up on both sides. Service providers are forced to be accountable to their clients. It means the supplier cannot sell a deal and throw it over the wall for service to deliver. It shifts value to longer, deeper relationships based on mutual self-interest and sharing.

6. Best-of-the-Best

For the past eight years, Service Performance Insight has conducted in-depth analysis of the top 5% of PS Maturity™ benchmark participants to uncover the reasons for their superlative performance. The leading (according to the PS Maturity™ model) organizations have been named "Best-of-the-Best" after a careful audit of their survey responses and an in-depth interview with their lead service executive.

In this year's benchmark, SPI Research names the top 21 firms, each scoring 20 or above (out of 25) on the PS Maturity™ Model. The following sections highlight some of the findings comparing the "best" preforming organizations to the rest of the survey participants.

Introducing the 2017 Best-of-the-Best Service Organizations

According to Service Performance Insight's **2017 Professional Services Maturity™ Benchmark** out of 416 participating organizations, twenty-one firms (5%) significantly outperformed the benchmark average by excelling in all five service performance dimensions – **Leadership, Client Relationships, Human Capital Alignment, Service Execution and Finance and Operations.** The top 21 firms outperformed their peers and the benchmark average with significantly higher profit and more satisfied clients.

One of the characteristics that differentiates this year's top performers is the emphasis they place on building unique, employee-centered cultures. Whether it is parental leave for all employees or providing employee ownership or career opportunities regardless of gender, these firms have built collaborative cultures in which continuous growth and teamwork are prized. Their emphasis on building an open and ethical work environment manifests in low levels of attrition and high levels of employee satisfaction and referrals.

Table 16: 2017 Best-of-the-Best Performance Advantage

Measurement	Top 20 Firms	All Others	Advantage
EBITDA	**19.2%**	**13.6%**	**41%**
Size of PS Organization (employees)	315	509	-38%
Year over year revenue growth	20.4%	8.4%	143%
Year over year PS headcount growth	16.9%	5.9%	186%
Average revenue per project (k)	$255	$157	62%
Annual revenue per employee (k)	$206	$160	29%
Projects delivered on-time	89.3%	77.4%	15%
Reference clients	81.7%	70.9%	15%

Source: Service Performance Insight, February 2017

This year's top performers are experiencing tremendous growth. Many have both acquired and been acquired, as larger firms seek to grab some of their magic. A top challenge is maintaining their esprit de corps as they grow. To ensure their cultures of continuous learning are passed down to newcomers and the next generation of leaders, many have built strong consulting and leadership development programs, emphasizing and supporting accountability at all levels.

They believe in working hard and celebrating often. All-company meetings occur on a regular basis, providing a platform for team building, learning and sharing. To support growth, many top performing firms have built robust college recruiting and training programs, often supported by summer internship programs. College hires are typically brought onboard through "classes" who start at the same time, work in the same office and go through training together. Top firms are also constantly on the lookout for experienced, strategic hires. They are not afraid to invest in superlative senior hires around whom they can build new business lines and solutions.

Another element of their success is to provide open books and communication so all levels of the organization are empowered to make proactive, fact-based decisions. Transparency binds employees to the direction and strategy of the firm, propelling superlative execution. Integrated business applications are an essential component of supporting their high levels of employee and revenue growth.

SPI Research is proud to announce the 2017 top performers. Due to privacy policies, three of the top twenty-one Best-of-the-Best Professional Services organizations declined to provide their profiles however their metrics and best practices are included in the "Best-of-the-Best" analysis.

Fruition Partners, a Division of CSC

Fruition Partners, a CSC company, is a global technology-enabled services firm focused on elevating service management to the cloud. Backed by hundreds of experienced ServiceNow experts, Fruition Partners delivers best practice implementation services, strategic guidance, and innovative platform solutions. Together with CSC's cross-vertical expertise and broader offerings, including Cybersecurity and Big Data, Fruition Partners is able to help organizations attain success throughout the entire Service Transformation process.

"Fruition Partners is ecstatic to be named a 'Best-of-the-Best' firm, for the second consecutive year. During a period of incredible growth and change for CSC, we continue to set a positive example as our nimble business practices are analyzed and adopted by other business units within the global organization. Culturally, we reinforce a spirit of honesty and continuous improvement. We are very proud to celebrate our continued success and embrace change"

Scott Klein, Global Chief Operating Officer – Fruition Partners Practice; Fruition Partners, a CSC Company

Neueda

Neueda is a global IT consultancy, training and software development company, headquartered in Belfast Ireland, with over 200 industry professionals with specific industry focus on Public Sector, Utilities and Capital Markets. Since 2004, Neueda have been delivering large scale, mission critical software projects to our public and private sector clients globally – leveraging our technical and domain expertise. To all our customers, we are seen as the trusted partner behind their digital service transformation. Neueda's success is based on an exceptional team of subject-matter-experts and a unique agile delivery approach.

"None of this growth would have been possible without the expertise and commitment of the team here at Neueda. Targeting the fastest growing market segments, having a team that is strongly focused on customer success and agile delivery with innovative business models, allows us to continue to create new solutions and technologies for our clients. We have exciting plans to further accelerate growth over the next few years maintaining Northern Ireland as our centre of excellence but expanding our service offerings into new product and IP specific opportunities and Managed Services that will take us into new international markets across our target sectors."

Peter Russell – Director Sales and Marketing, Neueda

SaaSFocus

SaaSfocus Inc. is a customer-centric, high-tech, cloud services consulting company focused on aiding and consulting businesses in their pursuit of cloud and other emerging technology solutions. We provide process and technology consulting with strong expertise in integration and customization of cloud based applications such as Salesforce.com, Force.com and Amazon Web Services. We are a proud Platinum Alliance Partner of Salesforce.com and Advanced Consulting Partner of Amazon Web services.

"We are building something. I think the thing I've learned is if you're an entrepreneur you can't help but be a builder. But here's the thing, you have to do it one step at a time, but you have to actually start and operate with some intention. That is what building looks like. You usually aren't a $100 million dollar company overnight and you don't fix gender inequality in two years. But you try really really hard. A year goes by and you see a dent. You see lives changing, you see people growing. You see an accepting and nurturing workplace developing for people with many walks of life and you realize this is what building truly is and this is how this becomes worth it. We are honored to be recognized as one of this year's Best-of-the-Best Professional Services organizations because it validates we really are building something meaningful."

Nathan Mueller, CEO, SaasFocus

CirrusOne

At CirrusOne we deliver high quality consulting services for the world's largest enterprises. Our team of architects, consultants and executives brings a diverse range of expertise to offer trusted advice on how to maximize our client's technology investment. We specialize in the delivery of complex CPQ, CLM, billing and customer success solutions by finding ways to match our client needs with the product's capabilities.

"CirrusOne is honored to be recognized as a 'Best-of-the-Best' organization. We take pride in what we do and this honor reaffirms our dedication to service excellence as we strive to help our customers succeed. The PS Maturity Model™ has become a valuable benchmark in our efforts to meet the evolving needs of our customers and a useful guide to pinpoint areas of success and those that require improvement. Being recognized as a Best-of-the-Best winner is not only an incredible honor, but also a reflection of the values we try to embody daily of trust and empowerment of our people. Consulting is hard work. Focus on results. Never compromise on quality. Every customer must be referenceable. From an operations perspective, the numbers don't lie. Focus on predictability."

John Pora, Managing Partner, CirrusOne

Mason Advisory

Mason Advisory is a UK-based, independent IT consulting firm that does things differently. We work with clients across all sectors to solve complex business challenges through intelligent use of IT. Our team aims to help clients set their strategy and then deliver on those decisions.

"Mason Advisory is a relatively young IT consulting firm that's growing quickly, which is why we're particularly delighted to have been recognised as one of the Best-of-the-Best professional services organisations. We have expanded our business by offering something a bit different from the traditional consultancy model – providing experienced teams that combine technology expertise with commercial and business sense. This recognition reflects our ambition to become one of the leading boutique consultancies in the UK."

Steve Watmough, CEO of Mason Advisory

Centrify

The Centrify Identity Platform protects against the leading point of attack used in data breaches — compromised credentials — by securing an enterprise's internal and external users as well as its privileged accounts. Trusted by more than 5,000 customers, including half of the Fortune 50, Centrify secures identities across hybrid, cloud, mobile and on-premises IT environments.

"To build a truly exceptional company, providing great service is not enough. From the beginning, every aspect of Centrify has been focused on the customer. We have built a culture of customer service which is reflected in the longevity, respect and trust we establish with our clients. Our service professionals have walked a mile in the shoes of the clients we serve so they can relate to the issues they face everday. That is why we have one of the highest satisfaction and retention rates in the industry and why we are perennial high performers in Gartner and Forrester Wave rankings. We are honored to be recognized as one of this year's Best-of-the-Best service organizations and feel it is an accurate portrayal of the quality and commitment we put into every customer engagement."

Dean Thompson, VP of Global Technical Services and OEM Sales, Centrify

Stoneridge Software

Stoneridge Software draws on years of experience in the Microsoft Dynamics space to provide complex ERP implementation and support. We look for the best and most experienced team members so that our clients have a consistently good experience. Our mission at Stoneridge Software is to "Enable Your Business"; we have the highly experienced Microsoft Dynamics resources who can help you reach your goals.

"We are honored to be recognized as one of Service Performance Insight's Best-of-the-Best for 2017. We appreciate the recognition for the quality of the organization we've built in three fast-paced years. The five pillars of Service Performance (Leadership, Client Relations, Human Capital Alignment, Service Execution and Finance and Operations) are aligned with our core values as a company. From the beginning our mission has been to be the best provider of Microsoft Dynamics ERP consulting and we are thrilled to be acknowledged for our operational excellence as we continue to grow our presence in the marketplace."

Eric Newell, President and Founder of Stoneridge Software

e4 Services

e4 Services, LLC is a healthcare information technology consulting firm specializing in clinical, hospital information management and revenue cycle services. e4 helps healthcare organizations simplify, manage, implement and transition clinical, health information management, and revenue cycle computer systems, applications, workflow and operations. e4 is a three-time winner.

"Being recognized again by SPI as a top performer is particularly gratifying this year. Driven in large part by regulatory initiatives that we assisted our clients with, 2015 was a year of tremendous growth. We entered into 2016 with some uncertainty regarding whether we would be able to continue to grow on top of that performance. Due to the tremendous work of our team members and their focus on our customers, we shattered our targets for the year and put ourselves a full year ahead of our 5-year plan. Our customer focus and ability to adapt to their changing needs, as well as our leadership team's persistent focus on our core metrics (based on many emphasized in the SPI report) positioned us for another successful year. The PS Maturity™ report continues to serve as the benchmark that we measure ourselves against, and where we look for new ways to stay on top of our business."

Jim Hennessy, CEO e4 Services, LLC

Superior Controls

Since 1993, Superior Controls, Inc. has reliably delivered professionally executed automation and control systems integration services to leading companies in 30 separate states and 15 countries. In addition to being six-time certified by the Control System Integrators Association (CSIA), Superior Controls has passed a number of project management and validation audits performed by industry leaders such as Pfizer, Biogen, GE Healthcare, and more. As Superior Controls now undergoes expansion, it will exhibit the same commitment to innovation and quality that customers have come to expect over the last 23 years.

"Being recognized as a "Best-of-the-Best" services organization is a tremendous honor. Superior Controls has a proven track record of success. The company has established itself as a leader in providing industrial automation and IT solutions for highly regulated industries, including Biotech, Food and Beverage, and Energy production. This honor recognizes the hard work and dedication of our experienced team of professionals along with our focus on building disciplined methods and systems to ensure our client projects are delivered with speed, responsiveness and reliability. We look forward to continue building the systems and processes vital to scaling the company for even more success."

Allen Schweitzer, CFO Superior Controls

Logical Design Solutions, Inc.

Logical Design Solutions (LDS) is a management consultancy specializing in digital strategy and design for global organizations. We partner with clients to envision and design emerging digital ecosystems. Our work can be found wherever business ecosystems are complex and changing, and where the human element is of critical importance. For more information, visit LDS.com.

"LDS is honored to be named a "Best-of-the-Best" consulting firm for the 8th year in a row. Making the decision to implement a Professional Service application is the easy part, understanding and managing by the information it provides is hard. The SPI Research PS Maturity Model™ and five Service Performance Pillars™ gives you what you need to bring it all to life."

Bruce Lovenberg, CPA Chief Financial Officer, Logical Design Solutions

Advoco

Advoco is a leading Enterprise Asset Management (EAM) consulting services company that has seen continual growth since its founding. By optimizing our clients' business performance through an improved application and implementation of Infor EAM, Advoco forms a trusted partnership and meets the complex needs of leading organizations around the world. The company focuses solely on delivering best-in-class Infor EAM solutions, allowing a depth of product knowledge that is unmatched.

"In Latin, advoco means 'to call in an advisor.' This thought is at the center of everything we do—we want to earn the title of trusted advisor from our customers. This is the driving force that pushes us to deliver innovative solutions that help our customers succeed in having the best EAM solution possible. But we're doing more than just delivering solutions—we're creating an Advoco culture. From our fitness challenges and charitable giving, to our wine making and legendary annual customer conference, we're creating a culture our team and our clients can rally around. We are truly honored to be named as one of the Best-of-the-Best Professional Services organizations because it shows that we are being recognized in our industry for our growth, our commitment to service, and the innovative things we are doing to build a company people want to stand behind and support."

Steve Brindle, Founder and Partner, Advoco

Collaborative Solutions

Collaborative Solutions is a leading global Finance and HR Transformation consultancy that leverages world-class cloud solutions to help deliver successful outcomes for its customers. As one of the longest-tenured consulting partners with Workday, Collaborative Solutions has a 98% customer satisfaction rate and has partnered with over 325 customers including global Fortune 500 companies, medium-sized businesses, and education and government institutions. Collaborative Solutions has deployed in over 125 countries and has experience with organizations ranging from 200 to 200,000 employees. Collaborative Solutions is based in the Washington, D.C., metro area with offices in Pleasanton, CA; Chicago, IL; Atlanta, GA; Tampa, FL; New York City, NY; Toronto, Ontario; and Dublin, Ireland.

"At Collaborative Solutions we take pride in our unique culture and industry-leading customer satisfaction. We are humbled to be recognized by Service Performance Insight as a 'Best-of-the Best' Professional Services Organization. Not only is this achievement an honor to receive, but it reflects our distinct company culture. Client success and a 98% customer satisfaction rating happens when you are focused on hiring and retaining driven, enthusiastic people."

Bob Maller, President and Chief Culture Officer at Collaborative Solutions

Pariveda Solutions, Inc.

Pariveda Solutions is a technology strategy and solutions firm focusing on developing exceptional people to solve our clients' most complex and valuable business problems. We are multifaceted problem solvers who provide strategic consulting services and custom application development solutions for mobility, cloud computing, data, portals and collaboration, CRM, custom software, enterprise integration and the user experience needs of our clients.

"Among the many firms in our industry, we are honored to be recognized as a "Best-of-the-Best" services organization three years in a row. Our consultants are diligent in their daily efforts as they grow to their fullest potential while creating and providing value for our clients through innovative solutions."

Kerry Stover, Chief Operating Officer, Pariveda Solutions

Aspect Software

For over 40 years, Aspect has been driven to help enterprises and customers better communicate and collaborate around the customer experience. Aspect's contact center, self-service and workforce solutions work together to deliver better outcomes for those on either side of the conversation. Our approach makes the engagement technologies consumers prefer (text, chat and social) fundamental and harmonious to the overall customer experience. It also lets consumers do more for themselves through self-service solutions that address the preference for text as a simple and central entry point to the entire customer experience, which results in intelligent, two-way automated conversations powered by natural language understanding.

"I am extremely proud of the ongoing transformation of our professional services organization and the dramatic performance gains we have made. By developing a consistent, repeatable service delivery framework we have been able to reduce our client's time to benefit and total cost of ownership, all while improving utilization, quality and consistency. The changes we are driving are both qualitative and quantitative. We believe that our inclusion in the 'Best-of-the-Best' professional service organizations is testimony to our focus on helping our clients and employees align to their goals and objectives – at the start of their contact center journey and in the long term as they grow and evolve."

Kenneth Ewell, Senior Vice President, Worldwide Professional Services, Aspect Software

Jacobus Consulting

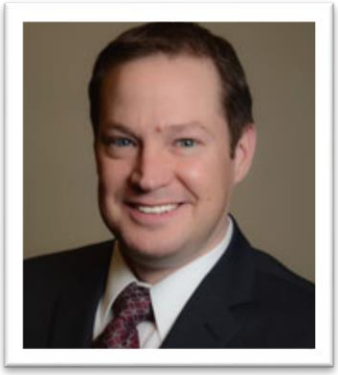
Jacobus Consulting is a leading healthcare consulting firm that partners with healthcare systems and providers to continually improve patient care and quality, system and workflow operations, and financial performance. A KLAS® top rated firm, Jacobus Consulting excels in all critical IT Advisory metrics that measure the industry's top 36 healthcare consulting firms. Customers praise our strategic competency, tools and methodology, healthcare knowledge and expertise, and operational execution to exceed their goals for the patient experience across the continuum of care, revenue cycle excellence, and the shift to value-based care.

"We are honored to be acknowledged as one of the first "Best-of-the-Best" healthcare professional services firms. Through our unified applications on the Salesforce1 and FinancialForce platforms, and our commitment to providing the highest quality consultants, we empower healthcare providers to transform their care to be patient and community centered as consumerism and a person's health journey continue to shape the demands of our industry."

Alan Hall SVP, Information Technology and Operations Jacobus Consulting

Integrated Project Management Company

Integrated Project Management Company, Inc. (IPM) is a leading project management consulting firm specializing in planning and implementing strategic and critical projects in the life sciences, healthcare, and consumer products sectors. Our leadership approach combines clients' internal capabilities and legacy knowledge with IPM's proven ability to inspire stakeholder engagement and buy-in to achieve project objectives. Since our inception in 1988, IPM has served more than 350 clients, from Fortune 100 companies to startups, and completed nearly 4,000 projects. Founded on a commitment to excellence, ethical and insightful leadership, community involvement, and the well-being of our family of employees, IPM's goal is to build a business that thrives 100 years—and beyond.



"IPM is honored to be named a 'Best-of-the-Best' Service Organization. We are proud of the service we provide to our clients, and are dedicated to helping them succeed. Our passion is reflected in the quality and dedication of our skilled and caring employees, who are our most valuable asset. Our mission is honored each time we exceed a client's expectations and each time an employee achieves his or her dreams."

Timothy J. Czech, Chief Financial Officer, IPM

ThinkAhead LLC

AHEAD is a consulting company that helps enterprises transform how and where they run applications and infrastructure. From strategy, to implementation, to ongoing managed services, we create tailored cloud solutions for enterprises at all stages of the cloud journey.

"AHEAD is honored to be recognized by Service Performance Insight as one of the Best-of-the-Best Services organizations in the industry. Not only do we approach every project with a deep expertise, but strive to provide every customer with an exceptional experience. Customer satisfaction and dedication to service excellence is in the fabric of AHEAD and its employees, and has been since day one. Receiving this award is a testimony to our efforts and our accomplishments."

Paul Bostjancic, Director of Service Delivery, Ahead LLC

Box

Box is an enterprise content management platform that solves simple and complex challenges, from sharing and accessing files on mobile devices to sophisticated business processes like data governance and retention. Since 2005, Box has made it easier for people to securely share ideas, collaborate and get work done faster. Today, more than 41 million users and 59,000 businesses—including 59% of the Fortune 500—trust Box to manage content in the cloud.

"Box Consulting is the professional services arm of Box, helping customers realize the value of transforming the way they work and maximize the benefits of their Box deployment. Box Consulting offers implementation packages for customers ranging from 50 employees to hundreds of thousands of employees and collaborators globally. Additionally, Box Consulting helps customers optimize existing deployments, move legacy ECM solutions to Box, and build custom business applications on the Box Platform. Meeting our customer's objectives requires running an excellent professional services operation and as such we are pleased to be recognized as one of this year's Best-of-the-Best Professional Services organizations."

Tim Smith, VP Consulting, Box

Best-of-the-Best Demographics

Table 17 compares the 21 best-of-the-best performing PSOs to the other 395 in this year's survey. As we have seen for the past eight years, Best-of-the-Best organizations tend to be more specialized than the average firm in the benchmark. This year's top performers are slightly smaller than average firms, with 315 PS employees compared to 509 for the rest. Eleven are independent systems and IT consultancies; four are embedded PS organizations within fast-growing technology companies; two are management consultancies; three are healthcare consulting organizations; and one is a Value-Added Reseller. The IT consultancies specialize in enterprise-class solutions for complex problems in government, healthcare, process control, high-growth cloud platform implementation, migration, integration and transformation. They serve a wide variety of industries with specialized expertise and deep domain knowledge.

Table 17: Best-of-the-Best Comparison – Demographics

Key Performance Indicator (KPI)	Best-of-the-Best	Rest	▲
Number of firms	21	395	
Size of PS organization (employees)	315	509	-38%
Annual company revenue (mm)	$117.3	$202.3	-42%
Total professional services revenue (mm)	$67.0	$86.9	-23%
Year-over-year change in PS revenue	20.4%	8.4%	143%
Year-over-year change in PS headcount	16.9%	5.9%	186%
% of employees billable or chargeable	83.6%	74.2%	13%
% of PS revenue delivered by 3rd-parties	9.5%	11.5%	-17%
M&A over the past three years	1.29	1.00	28%

Source: Service Performance Insight, February 2017

This year's Best-of-the-Best are characterized by high growth, profit, and high levels of client satisfaction. Every year we find the best firms are also the fastest growing. On average, they grew year over year PS revenue by 20.4% – more than double the revenue growth of average firms (8.4%). Year-over-year employee headcount growth was even more impressive at 16.9%, which is almost three times the headcount growth of average firms (5.9%). For these fast growing firms their top challenge is finding and growing the talent they need to sustain their dynamic growth while maintaining a culture of excellence.

The Best featured a much higher percentage of billable employees, and depend slightly less on third-party resources, preferring to recruit and deploy their own talented resources without heavily relying on subcontractors which translated to higher levels of both employee and client satisfaction.

Half of this year's top performers augmented their organic growth with acquisitions or were acquired by larger firms. Five firms participated in over four acquisitions as they consolidated their market dominance. Top-performing firms were able to use their own transformation and change management capabilities to quickly integrate and take advantage of acquisitions as a catalyst for growth.

Pillar Performance

The following sections highlight the results of this year's Best-of-the-best professional services organizations (PSOs) and compare their results with the rest of the survey participants.

Leadership

The leading firms are highly specialized. They concentrate on specific high-growth technology or IT segments or vertical industries. The executives of top-performing firms are seasoned professionals – often with a track record of founding and growing multiple prior consulting organizations.

A recurring theme from this year's leaders is their strong sense of community. The leaders of the top firms are seen as visionaries within the markets they serve, they see their role as one of truly helping improve the lives of their clients and employees. They select clients and projects because they share the same values, whether it is a love of transformational change or desire to make a difference through healthcare and government programs. Their sense of pride and commitment comes through in the organizations they have developed.

Table 18: Best-of-the-Best Comparison – Leadership Pillar (1 to 5 Scale)

Key Performance Indicator (KPI)	Best	Rest	▲
Well understood vision, mission and strategy	4.67	3.78	24%
Confidence in PS leadership	4.71	3.99	18%
Ease of getting things done	4.48	3.71	21%
Goals and measurements in alignment	4.52	3.67	23%
Employees have confidence in PSO's future	4.71	3.86	22%
Effectively communicates w/employees	4.62	3.71	25%
Embraces change - nimble and flexible	4.52	3.81	19%
Innovation focused	4.62	3.65	27%

Source: Service Performance Insight, February 2017

This year's leaders discussed the importance of building a unique, employee-centric culture which in turn becomes a source of competitive differentiation. In today's competitive talent market establishing a strong reputation as a great place to work and grow is paramount to building brand awareness and success. While each leader discussed the importance of client success, they also discussed the importance of creating engaged employees to carry on the culture and position the firm for the future. A key area of differentiation is that top firms significantly invest in employee development. On average, they provide 11.5 days of employee training compared to 8.1 days for average firms.

Table 18 compares the leadership metrics of the highest performing organizations with the remainder of the survey. The two highest differential scores are innovation and effective communication. Leading PSOs emphasize the importance of establishing a clear and differentiating vision, based on innovation, which is widely communicated and shared throughout the organization; and cemented by congruent goals and measurements. This clarity of purpose provides a powerful foundation for creating a unique culture which supports and accelerates market differentiation, in turn leading to strong employee confidence in the future.

Client Relationships

Many of this year's Best-of-the-Best do not employ traditional solution sales people. The independent IT and management consultancies depend on their regional practice leaders to be the chief rainmakers in their region or domain. Although practice leaders are charged with developing a book of business, they are also charged with personal billability goals to ensure they continue to be recognized experts in their field. Independent Best-of-the-Best firms expect their practice leaders to be consultants first, able to truly add value to executive relationships. Repeat business and referrals are the primary source of new business, a strong testimony to superlative client relationships and results.

The embedded PSOs primarily rely on the product sales force. They have forged a strong partnership with product sales and have built sales tools and service packages to guide and shape consulting engagements. These service packages enable the product sales force to position and quote services, leading to higher product and service attach rates. PS is regarded as a significant and growing source of top-line company revenue, not a necessary evil. In many cases, their lead services executive is responsible for global support, professional services and account management with the title of Chief Customer Success officer, acknowledging the important role services plays in ensuring client success. A relatively new set of metrics has emerged for PS, focused on customer adoption. The cloud PSOs measure not only the number of licenses, seats and client revenue but also the level of client adoption and engagement by building dashboards and scorecards which depict client usage and adoption.

All this year's Best-of-the-Best rely on CRM applications to improve their sales and marketing effectiveness. Fifteen of the top firms use Salesforce.com as their CRM. Several firms credited the tight integration between their CRM and PSA applications as a catalyst in building collaboration between sales and service delivery. They have instituted consistent sales processes and bid reviews to ensure they are focused on the type of projects they are most likely to win and to maintain pricing and contract terms within guidelines. Because they are the premium supplier in their well-defined markets, often they do not have to compete for business. They are chosen based on referrals, their demonstrated competence and high levels of customer satisfaction.

Table 19: Best-of-the-Best Comparison – Client Relationships Pillar

Key Performance Indicator (KPI)	Best	Rest	▲
Total annual number of active clients	290	413	-30%
Revenue from current clients - Existing services	51.0%	53.7%	-5%
Revenue from current clients - New services	13.0%	16.9%	-23%
Revenue from new logo clients - Existing services	23.8%	19.2%	23%
Revenue from new logo clients - New services	12.3%	10.1%	21%
Bid-to-Win ratio (per 10 bids)	6.62	4.75	39%
Deal pipeline relative to qtr. bookings forecast	275%	184%	49%
Sales cycle (days: qualified lead to contract signing)	100	92	-8%
Average service discount given	6.0%	7.8%	23%
Solution development effectiveness	3.90	3.44	14%
Service sales effectiveness	3.90	3.39	15%
Service marketing effectiveness	3.43	3.05	13%
Percentage of referenceable clients	81.7%	70.9%	15%

Source: Service Performance Insight, February 2017

Survey results revealed that the percentage of revenue from new clients was 36.1% for Best-of-the-Best firms compare to 29.3% for average organizations. New client expansion is a key ingredient of their high growth and profitability. Leaders give higher marks for sales, marketing and solution development effectiveness. Interviews revealed leaders do not have the schism between sales and service delivery which is so apparent in many PSOs. This sales and delivery collaboration produced higher win to bid ratios, larger sales pipelines and more reference customers. They are well-positioned in their markets due to specialization and a focus on solution development which resulted in much higher levels of sales and marketing effectiveness as well as repeatability with institutionalized quality in their projects.

Human Capital Alignment

Talent is a primary focus and hot topic for all service firms. In an increasingly tight and transparent talent market, top performing firms are becoming laser-focused on their employment brand. Organizations are embracing technology to help reinvent the workplace with knowledge-sharing, team-building, transparency and collaboration at the core of their continuous learning cultures.

Table 20 compares Human Capital Alignment pillar key performance indicators between the Best-of-the-Best organizations with the remainder. The table shows lower levels of voluntary attrition, more employees who would recommend the firm as a great place to work and significantly higher levels of employee training investment. Top performing firms place a premium on high quality recruiting and on-boarding programs resulting in faster recruiting and ramping times combined with higher billable utilization. They hire “A” players. They invest a lot in them and expect a lot from them. Billable utilization targets of the best firms average 80% or higher – more than 10% higher than the typical industry utilization of 70%. This means top performing consultants are typically able to bill 200 more hours per year than average firms.

Table 20: Best-of-the-Best Comparison – Human Capital Alignment Pillar

Key Performance Indicator (KPI)	Best	Rest	▲
Percentage of workforce that is male	66.2%	63.6%	4%
Employee annual attrition - voluntary	7.3%	8.1%	10%
Employee annual attrition - involuntary	7.1%	5.5%	-30%
Recommend company to friends/family (1 to5)	4.90	4.24	16%
Management to employee ratio	10.24	9.99	3%
Days to recruit and hire for standard positions	64.3	62.0	-4%
Days for a new hire to become productive	45.0	56.0	20%
Guaranteed annual training days / employee	11.50	8.15	41%
Well-understood career path for all employees (1 to 5 scale)	3.90	3.13	25%
Employee billable utilization	79.3%	69.9%	14%

Source: Service Performance Insight, February 2017

Each top firm emphasized the importance of culture. Culture goes way beyond establishing a mission statement – it must be unique and inspiring to attract the type of consultants and clients the firm can best serve. Interestingly, many of this year's Best-of-the-Best have also been recognized as "Best Places to Work" by other publications. Innovative employee engagement programs include: annual company retreats which may include spouses; generous healthcare and parental leave policies; flexible work schedules; health and wellness programs; significant investments in employee training and career development and a consistent focus on fun, team-building, collaboration and communication.

The leading firms use a variety of innovative recruiting strategies – from establishing strong partnerships with local universities, to attracting more senior consultants from their competitors. Just as in selling, referrals are a key source of new hires because the best and brightest invite their friends to join them. Once on board, the best firms offer new hire orientation and on-boarding programs which include shadowing and mentoring to quickly bring new hires up to speed. Leading firms have discovered they simply cannot rely on stealing top talent from their competitors – they need to grow their own. Several firms recruit from local universities (MIS and Engineering) and then invest over 90 days in teaching new hires both the industry and technology. This strategy, although initially expensive, results in qualified consultants who are able to hit the ground running after their on-boarding program has been completed. Other fascinating recruiting strategies include personality testing for cultural fit, communication and organizational skills in addition to technical knowledge.

Top firms also invest in helping consultants build their own networks and communities – they encourage their young consultants to build strong college and network ties… to serve these communities with their talents but also as a source of recruiting and business referrals. With young millennial consultants, continuous learning is a perquisite which means top firms understand employee career and knowledge aspirations and ensure top performers are assigned to the projects, clients and geographies they are most interested in.

Just finding talent is not enough. This year's Best-of-the-Best firms focused on ramping and employee training to develop a qualified workforce. Some create rotational assignments to give their employees greater exposure to other services and clients. Employees who are continually learning and expanding their knowledge base tend to stay with their employer. When the work is not challenging or interesting, morale suffers and attrition rises. Several of the smaller firms are 100% virtual – in other words, they don't invest in expensive facilities but keep morale high with in-person weekly and quarterly meetings to enhance communication and team-building.

Service Execution

Table 21 compares service execution key performance indicators between the Best-of-the-Best organizations and the remainder. The table points out the leaders have larger projects, more rigorous quality processes, fewer project overruns and fewer projects cancelled. Leaders focus on all aspects of service delivery, with higher marks for knowledge management, resource management and estimating and change control processes. Their focus on service delivery excellence produces superlative productivity with 83.6% of their employees in billable roles and 79.3% billable utilization.

Table 21: Best-of-the-Best Comparison – Service Execution Pillar

Key Performance Indicator (KPI)	Best	Rest	▲
Average project staffing time (days)	6.79	8.79	23%
Number of projects delivered per year	226	381	-41%
Average revenue per project (k)	$255	$157	62%
Concurrent projects managed by PM	5.03	5.59	-10%
Average project staff (people)	4.70	4.14	13%
Average project duration (months)	6.25	5.39	16%
Projects delivered on-time	89.3%	77.4%	15%
Projects canceled	1.3%	2.0%	35%
Average project overrun	4.5%	8.6%	48%
Use a standardized delivery methodology	81.0%	70.7%	15%
Project margin for time & materials projects	41.5%	35.2%	18%
Project margin for fixed price projects	42.9%	34.3%	25%
Average project margin — subs, offshore	37.8%	27.7%	36%
Effect. of resource management process	4.29	3.55	21%
Effect. of estimating processes and reviews	4.14	3.52	18%
Effect. of change control processes	4.05	3.41	19%
Effect. of project quality processes	4.14	3.57	16%
Effect. of knowledge management processes	3.62	3.20	13%

Source: Service Performance Insight, February 2017

Because every leader relies on a PSA application they are able to build and reinforce project delivery standards which result in precision execution and high levels of quality, productivity and profitability. They credit their PSA with improving resource, project management, time and expense capture and billing, leading to higher levels of billable utilization and on-time project completion. This year's Best-of-the-Best were uniform in their commitment to developing standardized methodologies. In addition to repeatable processes and templates, they are focused on ensuring high quality delivery. Most estimates, proposals and changes go through a rigorous evaluation to ensure proper risk management and margin analysis.

Finance and Operations

The Best-of-the-Best are focused on financial success and stability. They all have deployed a commercial finance and accounting solution which is partially integrated with their PSA application for billing and revenue recognition. All the leading firms have invested in both a CRM and PSA application. Twelve use Salesforce.com as their CRM. Commercial PSAs used are: NetSuite/OpenAir; Projector PSA; FinancialForce PSA; Kimble; Microsoft Dynamics, Deltek, Tenrox and Workday. On the financial side of the business, they rely on QuickBooks; NetSuite; Microsoft Dynamics; Workday; SAP; Deltek; FinancialForce and Oracle.

The Professional Services Maturity Model™ scoring over-weights financial success; meaning the leaders in this survey were much more profitable than their peers.

Table 22: Best-of-the-Best Comparison – Finance and Operations Pillar

Key Performance Indicator (KPI)	Best	Rest	▲
EBITDA	**19.2%**	**13.6%**	**41%**
Annual revenue per billable consultant (k)	$255	$202	26%
Annual revenue per employee (k)	$206	$160	29%
Quarterly revenue target in backlog	64.0%	44.3%	45%
Percent of annual revenue target achieved	101.7%	91.5%	11%
Percent of annual margin target achieved	100.7%	89.4%	13%
Revenue leakage	2.65%	4.41%	40%
% of inv. redone due to error/client rejections	1.0%	2.3%	57%
Days sales outstanding (DSO)	46.1	44.5	-4%
Quarterly non-billable expense per employee	$1,417	$1,590	11%
% of billable work is written off	1.63%	2.66%	39%
Executive real-time wide visibility	4.19	3.46	21%

Source: Service Performance Insight, February 2017

Table 22 shows the enviable financial results from this year's Best-of-the-Best. They produced significantly more net profit (19.2% compared to 13.6%) than average firms in the benchmark. This high level of profitability is derived from more revenue per employee, project and consultant. All of the Best-of-the-Best can be characterized as running a very tight financial ship. They are frugal with non-essential expense. In particular, they don't invest in fancy offices and non-billable travel, preferring to heavily invest in the skill development of their employees.

The Best-of-the-Best make money on every aspect of the business with high subcontractor margins (37.8%); high time and materials project margins (41.5%); and higher fixed price project margins (42.9%). The leaders had a significantly larger amount of revenue in backlog (64%), which creates greater financial stability and predictability. They were much more likely to have achieved both their annual revenue and margin targets which shows they are running a predictable business.

The Best-of-the-Best PSOs Use and Integrate PS Applications

SPI is continually asked:

- ∆ At what size should a PSO start to evaluate and acquire business applications?

- What are the most prevalent business applications and what should our priority be for application acquisition?
- What is the impact of each of the primary business applications?
- Which is better – a best of breed stand-alone application or an integrated suite?
- What is the benefit of application integration?

Table 23: Best-of-the-Best Business App. Adoption, Integration, Satisfaction

Solution	Best	Rest	Delta
Commercial financial mgmt. solution	95.2%	90.8%	5%
Satisfaction with financial solution	4.19	3.64	15%
Commercial CRM solution	90.5%	84.5%	7%
Satisfaction with CRM solution	4.21	3.88	8%
CRM is integrated with ERP	53.3%	39.1%	36%
Commercial PSA	95.2%	79.1%	20%
Satisfaction with PSA solution	4.45	3.77	18%
PSA is integrated with ERP	84.4%	52.1%	62%
Level of CRM and PSA Integration	64.3%	37.9%	70%
Commercial HCM solution	81.0%	52.9%	53%
Satisfaction with HCM solution	3.42	3.36	2%
HCM is integrated with ERP	40.0%	32.6%	23%
KM solution	71.4%	56.6%	26%
Satisfaction with KM solution	3.75	3.49	7%
Remote service delivery tool	85.7%	80.3%	7%
Satisfaction with RSD solution	3.89	3.79	3%
Social networking tool	95.2%	87.3%	9%
Satisfaction with social networking tool	4.17	3.78	10%

Source: Service Performance Insight, February 2017

To answer these questions, an evaluation of business application usage comparing this year's Best-of-the-Best PSOs to average organizations provides a compelling picture of the power and impact of integrated business applications. Table 23 shows application usage, satisfaction and integration of each of the core PS business applications for the top performing (top 5%) survey participants compared to the remainder. The table provides a powerful illustration of the benefits of PS application usage and integration. Across all application categories, top performing firms are more likely to have implemented a commercial business application and much more likely to have integrated it with the core financial application. Likewise, top performing organizations are much more likely to have integrated their CRM and PSA applications to provide real-time visibility and collaboration between sales and service delivery. This visibility gives them much greater insight into customer information and promotes sharing of customer information which enhances both sales and service delivery effectiveness.

Best-of-the-Best Conclusions

Each year it is inspiring to meet with leaders of the Best-of-the-Best organizations. They are justifiably proud of the unique Professional Services organizations they have built, but their pride is focused on their employees and client results, not on themselves. An area that sets the leaders apart is their in-depth knowledge of their markets and solutions. They understand and have visibility to all aspects of the business, despite the fact that many of them run very large organizations.

More than average firms, they are truly passionate about building an exceptional organization, not just for today, but for decades to come. They are willing to honestly look at themselves and the business and make changes to ensure they continue to be the premium firm. Their sterling reputation for delivering high quality results is a key ingredient in their success as most often new business comes from referrals. One executive spoke of a CIO client that had brought them into four different organizations as he made career moves.

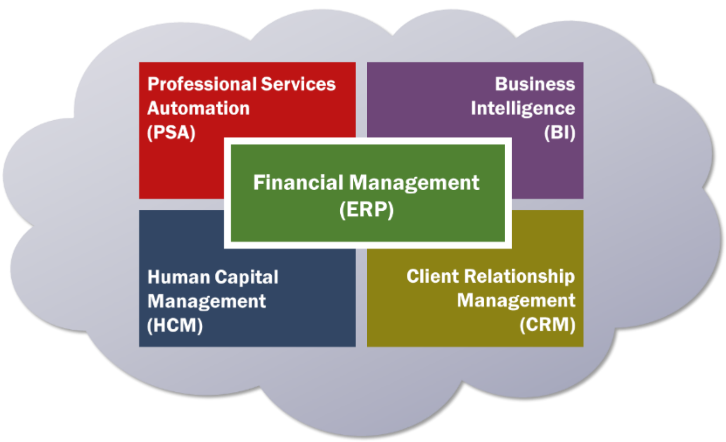
A few of this year's Best-of-the-Best have been winners year-after-year, both throughout the great recession and now again when the consulting market is hot. The independents have aligned themselves with the latest and greatest technologies. They are constantly reinventing themselves to ensure they are on the cutting edge of the best technology solutions for their markets. The leaders of the embedded PSOs have a seat at the executive table – PS is seen as a critical element of the business and a major source of revenue, profit and client product adoption.

Excellence is within the grasp of all PS organizations – but it takes hard work, determination and constant vigilance. Service Performance Insight finds it gratifying that leading organizations rely on the PS Maturity™ benchmark to guide their investments and performance. "You get what you measure" so reference the superlative results of this year's Best-of-the-Best to build your own organizations for the future!

7. Professional Services Business Applications

In a business climate driven by technology, disruption and skilled talent shortages, professional services organizations must themselves become technology-enabled. In the past, PS technology use was confined to operations and service execution, it now has become mandatory, extending virtual workspaces, enhancing collaboration and knowledge sharing, providing the basis for effective recruiting, hiring and employee engagement and furnishing the tools for planning, budgeting, forecasting and analyzing. Top performing services organizations have deployed integrated business applications across all aspects of the business, giving them unprecedented visibility and control to see and take advantage of business changes in real-time.

Technology understanding and use has become a strategic imperative to exploit globalization and drive market growth. Barriers to entry are being lowered as faster, nimbler, more technology-savvy firms seize top clients and markets. In this climate, new entrants focused on niches, specific functions and underserved constituents can quickly grow and make an impact on larger, more entrenched players. At the same time, consultants are demanding easy-to-use, contextual, socially aware systems which mimic the applications they use in their personal lives. Mobile is no longer a nice to have, it has become a strategic imperative to reach an increasingly global and virtual client base and workforce.



The growth engine of the world's economy has shifted from manufacturing to project-based, people-centric services businesses. These businesses rely on project-based Enterprise Resource Planning (ERP), also known as Services Resource Planning (SRP), applications to manage the financial aspects of the firm. These solutions automate core business processes such as quote-to-cash, resource and talent management, time capture and billing, and provide the real-time visibility necessary to improve organizational efficiency and effectiveness.

Services firms are uniquely people-driven organizations. They depend on the knowledge and skills of a talented workforce to sell, staff and deliver a range of services typically on a project or contract basis. The fundamental financial requirements of service-based businesses are very different from classic manufacturing and supply-chain focused ERP applications as they must include functionality for managing resources (people) and projects (tasks). Increasingly, project-based ERP application providers also add rich talent management capabilities to support recruiting, on-boarding, compensating and rewarding the employees who are the core asset of service-based businesses.

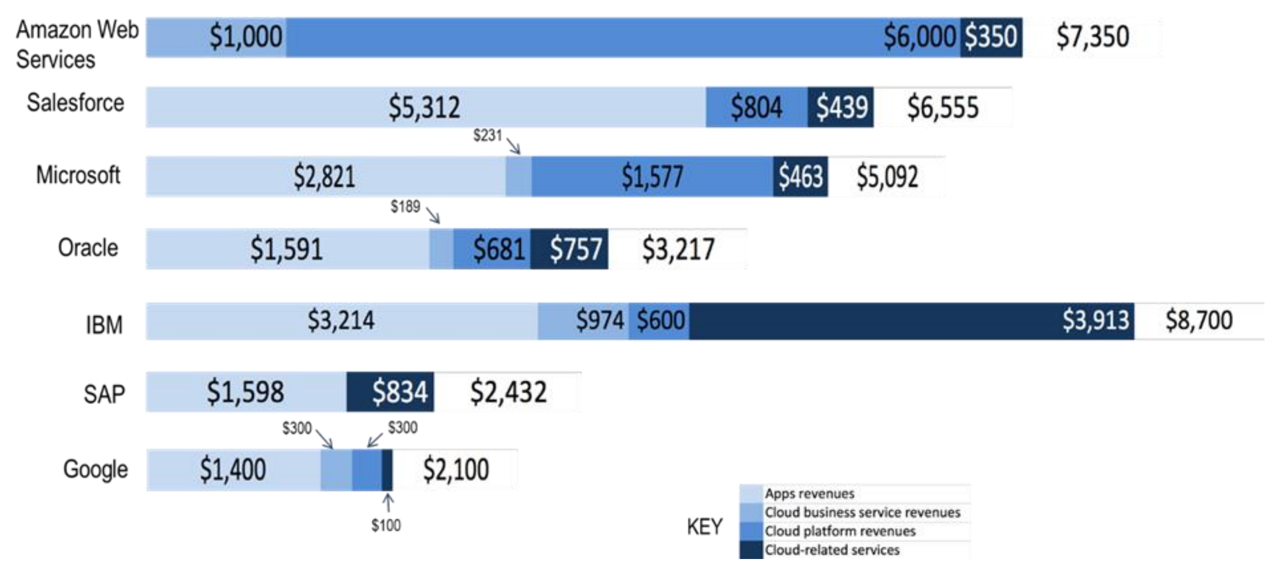
Project- and service-based extensions to enterprise ERP applications started to appear in the late 1990's at the same time stand-alone Professional Service Automation (PSA) solutions supporting resource scheduling and time capture and billing became available. Over the past seventeen years, project accounting, resource management and time capture and billing modules have been added to many ERP applications. Now most project-based ERP providers also add Human Capital Management (HCM) or talent management extensions to accentuate the important role that recruitment and engagement of a talented workforce has in today's economy. Support for specialized billing methods and complex revenue recognition rules for subscriptions, time and materials, work-in-process, deliverables-based or percentage completion are also important project-based ERP extensions.

This chapter provides PS executives and software application providers insight into the level of market adoption, integration and satisfaction with core Professional Services business applications from *this year's* benchmark survey. ***It is not intended to be an overall application market adoption survey***. The solutions highlighted in this chapter help PSOs optimize operational effectiveness through increased visibility, streamlined business processes and cost management.

The Cloud First

For Professional Services organizations, the cloud debate is over and the cloud won. Once considered a threat to jobs and consulting profitability, the cloud is now heralded as the global economic engine underpinning innovation, new business models and revenue growth. IDC reports that spending on public cloud accounts for less than 5% of total IT spending and 15% of total software spending today, but is expected to grow at six times the rate of overall IT spending from 2015 through 2020 (Figure 33). Public spending on cloud computing will surpass $99 billion in 2017. Cloud spending is growing 6X faster (19%) than traditional IT spending (3%). **There is an enormous underserved services opportunity around the top cloud platforms as PS market potential is typically 3X the value of software/platform revenues.**

Figure 33: Cloud Revenues of Enterprise Vendors in 2015

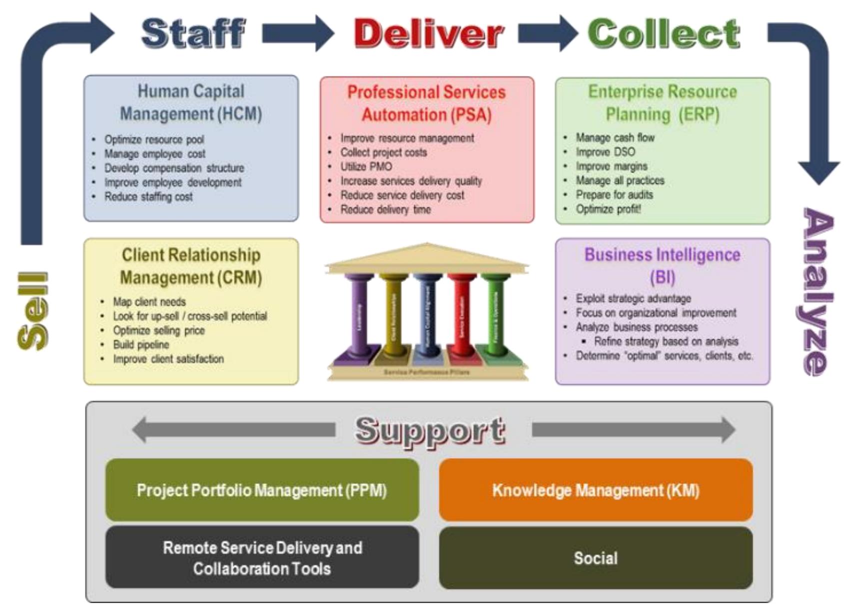


Source: Wall St. Journal

Today's Professional Services organizations are not only adopting cloud applications to run their own businesses but they must also start making strategic decisions regarding the cloud platforms they will support. **According to the [Rightscale State of the Cloud 2016 report](), lack of resources and expertise has replaced security as the number one challenge facing enterprises moving to the cloud.** This means there is a tremendous opportunity for Professional Service providers. For example, Amazon Web Services supports over one-million active enterprise users, providing an enormous services opportunity to help companies build cloud native applications, provide e-business hosting, develop enterprise applications, replace legacy applications and support managed services. IDC reports Salesforce and its ecosystem of customers and partners will drive nearly 1.9 million new jobs and more than $389 billion in new GDP impact worldwide by 2020.

Primary Professional Services Business Applications

Figure 34: Core Professional Services Business Applications



Source: Service Performance Insight, February 2017

A project-based ERP system is an integrated information management system that manages the capture and flow of information across departments and functions. It includes a common enterprise-wide database and various application modules to support fundamental business activities, such as accounting, finance, sales, marketing, resource and project management and human resources. An ERP system is used to standardize business processes and provide reports, insight and control for both revenue and costs. The value of such a system is to enable critical information to be analyzed and shared across the organization for more insightful and timely decision-making. For purposes of this report, SPI Research considers Project-Based ERP solutions to have several modules that include:

- ∆ ***Financial Management or Enterprise Resource Planning (ERP)***: The fundamental solution required to accurately collect and report financial transactions.
- ∆ ***Client Relationship Management (CRM)***: The automation of client relationship processes to improve sales and marketing efficiency and effectiveness.

- ∆ ***Professional Services Automation (PSA)***: The initiation, planning, execution, close and control of projects and services through the management and scheduling of resources that include people (both internal and partners), materials and equipment.
- ∆ ***Human Capital Management (HCM)***: Talent management solutions for recruiting, hiring, compensation, goal-setting and career and performance management which rely on integration with and extracts from the employee database.
- ∆ ***Business Intelligence (BI)***: The assembly and use of information to improve decision-making.

Both embedded and independent professional service organizations require similar functionality. The service industry's use of technology has typically lagged the manufacturing sector but the global size, complexity and growth of today's service businesses has increased the need for specialized applications along with the demand for real-time information. Table 24 shows the various departments within a typical professional services organization (with more than 30 people), and depicts departmental requirements and core business applications.

Table 24: PSO Departments and Information Needs

Department	Core Requirements	Core Applications
Executive & Administrative	Strategic planning, budgeting, management reporting, decision support	Business Intelligence, Budgeting, Planning and Reporting
Human Resources	Payroll, Benefits, Recruiting, Hiring, Training, Compensation, Performance and Career Management	Human Capital Management. Payroll, Benefits
Legal	Patents, law suits, contract management and approvals	Contract or Case Management
Finance & Accounting	Financial management, operations, planning, forecasting, budgeting. Time & expense capture, billing, collections.	Financials, Budgeting & Planning, Forecasting, Billing, Collections
Marketing & Sales	Marketing automation, sales force automation, account, contact and territory management, pricing & proposals.	Marketing Automation Client Relationship Management, Contract Management
Purchasing	Material, equipment and external service procurement.	Procurement
Service Delivery	Estimating, Project Management, Resource management and staffing, Knowledge Management and Collaboration, Quality Management. Social networking tools and web and video conferencing and remote service delivery tools.	Professional Services Automation: (Project Management, Resource Management, Knowledge Management, Collaboration, Remote Service Delivery)
Information Technology	Project scheduling, technology evaluation, systems development and implementation	Application Lifecycle Mgmt., Project Portfolio Management
Research & Development	New service development; knowledge sharing; template, tool and methodology development	Product Lifecycle Management (PLM), Knowledge Management, Code Repository

Source: Service Performance Insight, February 2017

PS Solution Adoption

In this year's survey, reported commercial adoption increased in social networking, Remote Service Delivery and Collaboration Tools, Professional Services Automation and Business Intelligence. At the same time, reported usage of ERP, CRM and HCM declined slightly. The abundance of high quality, affordable cloud-based solutions has enabled greater numbers of PSOs to adopt commercial business solutions yet a surprisingly high number of firms still rely on antiquated homegrown applications and spreadsheets. SPI's discussions with the leading application providers shows that cloud-based applications are outselling non-cloud by a factor of greater than six-to-one. Cloud solutions are especially important in the professional services sector, as today's virtual consulting organizations may have skilled employees located across the globe, not collocated in physical offices. The cloud has enabled PS executives and workers at all levels greater mobile access to the information they need to improve visibility and management control of resources and projects.

Figure 25 compares the adoption of commercial solutions versus home grown, and organizations that still rely on spreadsheets. The table shows less than 10% of the organizations surveyed do not have a formal ERP solution, meaning they probably use Excel and email to run the business.

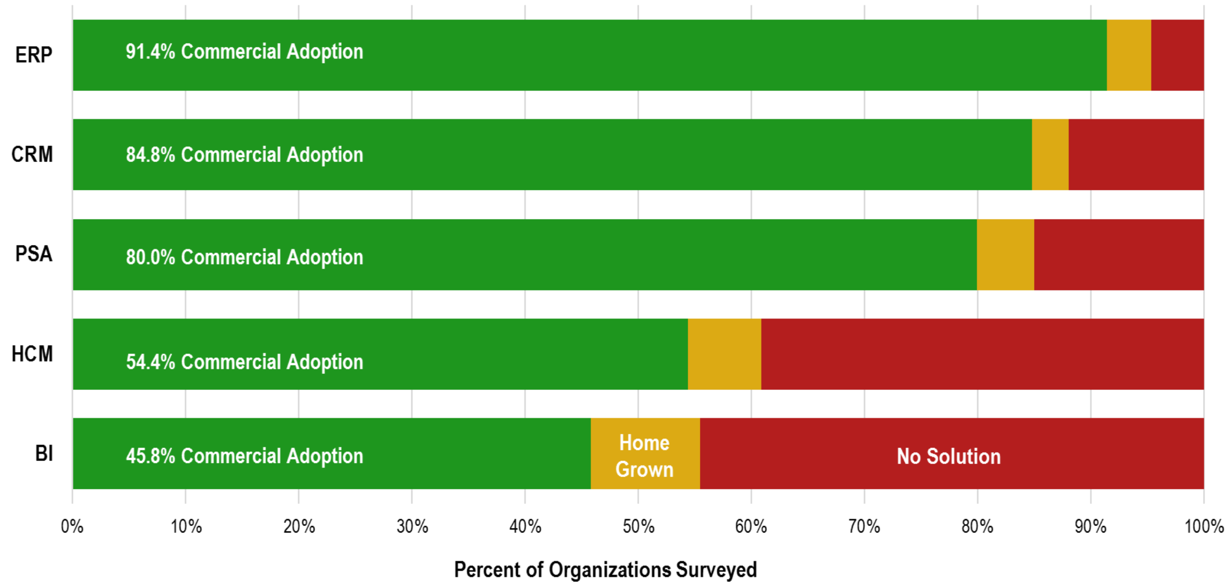
Table 25: Commercial Solution Adoption

Solution	2014	2015	2016
Enterprise Resource Planning (ERP)	92.2%	95.3%	91.4%
Social Networking (SN)	88.8%	81.7%	87.8%
Client Relationship Management (CRM)	87.4%	86.3%	84.8%
Remote Service Delivery (RSD)	84.1%	77.4%	80.6%
Professional Services Automation (PSA)	81.5%	79.8%	80.0%
Knowledge Management (KM)	63.6%	61.8%	57.4%
Human Capital Management (HCM)	46.4%	56.8%	54.4%
Business Intelligence (BI)	35.1%	45.4%	45.8%

Source: Service Performance Insight, February 2017

Social networking has now moved to become the number two solution, edging out CRM for the first time. CRM adoption surpassed PSA adoption five years ago, when cloud-based CRM applications, primarily from Salesforce.com, became the standard. CRM usage is often misleading as many firms may only purchase a limited number of sales seats whereas they require PSA functionality (and licenses) for all billable members of the organization. More and more firms are also investing in Marketing Automation to generate leads, track prospects and build the brand. Remote service delivery tools have likewise become prevalent, enabling consultants to work on client projects and machines remotely. These powerful tools have ushered in the wave of offsite consulting and virtual project delivery which have radically improved consulting productivity. Interestingly, knowledge management still lags other application areas despite the productivity and quality improvements it provides. A plethora of open-source tools are starting to encroach on Microsoft's SharePoint as the dominant knowledge management tool.

Figure 35: Commercial Solution Adoption



Source: Service Performance Insight, February 2017

SPI Research continues to see increased adoption of PSA business solutions (80%). Increasingly legacy on-premise applications are being replaced by cloud-based PSA applications. Many standalone PSA solutions are not yet integrated with the core financial (ERP) solution or the CRM application. SPI's research continually points to application integration as a key enabler of superlative business performance.

Human Capital Management (HCM) applications have experienced the greatest growth in PS adoption in recent years. As new cloud-based, powerful HCM applications have come to market expect to see adoption continue to rise to equal or even surpass PSA. It only makes sense that people, the crown jewels of the consulting profession, will benefit from applications which empower employees to manage their own skill and career development. Further, HCM solutions provide benefits in improved recruiting which can be significant as the average PSO spends more than 2% of total revenue on recruiting and another 1 to 2% on training. HCM applications are also starting to provide powerful learning management platforms so employees have a single system of record to enhance skills.

Each year SPI Research's Professional Services Maturity™ benchmark quantifies the benefits achieved by services organizations with solutions that integrate Client Relationship Management and financial processes, Human Capital Management and financial processes, and Professional Services Automation and financial processes. Of course, the systems themselves are only part of a broader firm-wide commitment to behavioral change that fosters collaboration and enhanced communication, coordination and quality management.

Table 26 compares business solution adoption and satisfaction along with the level of financial management (ERP) integration. Interestingly, this year European usage of CRM and PSA business applications has surpassed that of North American and Asia-Pacific organizations for the first time. The only areas European firms lag in is their use of ERP ad HCM. In this survey, PS application usage in Asia-Pacific lags both American and European adoption in all areas except Knowledge Management and Social media. Understandingly, application satisfaction is highly correlated with usage. Typically, application satisfaction improves as business applications become more widely adopted. CRM received the highest satisfaction ratings across all application categories as it provides tremendous benefit by improving visibility and sales and marketing effectiveness.

Table 26: Business Application Use by Organization Type and Geographic Region

Key Performance Indicator (KPI)	2016	ESO	PSO	Americas	EMEA	APac
Commercial ERP solution used	91.4%	92.3%	91.0%	93.7%	88.6%	75.0%
Satisfaction with ERP solution	3.67	3.41	3.82	3.73	3.54	3.44
Commercial CRM solution	84.8%	93.7%	79.9%	83.7%	89.9%	82.1%
Satisfaction with CRM solution	3.90	3.93	3.88	3.91	3.82	3.96
CRM is integrated with ERP	39.7%	46.3%	35.7%	40.0%	43.2%	27.1%
Commercial PSA solution	80.0%	86.8%	76.3%	79.0%	87.5%	69.0%
Satisfaction with PSA solution	3.80	3.62	3.91	3.84	3.89	3.19
PSA is integrated with ERP	53.5%	54.4%	53.0%	55.8%	50.0%	37.0%
Commercial HCM solution	54.4%	66.7%	47.9%	58.2%	48.7%	29.6%
Satisfaction with HCM solution	3.36	3.31	3.40	3.42	3.25	3.09
HCM is integrated with ERP	33.0%	30.3%	34.9%	33.4%	30.6%	35.0%
Commercial BI solution	45.8%	57.6%	39.4%	43.1%	55.8%	46.4%
Satisfaction with BI solution	3.49	3.57	3.44	3.53	3.51	3.21
BI is integrated with ERP	43.3%	46.5%	41.2%	44.3%	45.0%	31.0%
Commercial KM solution	57.4%	70.1%	50.6%	54.7%	62.8%	70.4%
Satisfaction with KM solution	3.51	3.54	3.48	3.55	3.37	3.50
Comm. Remote service delivery tool	80.6%	85.6%	77.9%	81.3%	83.1%	66.7%
Satisfaction with RSD solution	3.79	3.76	3.81	3.81	3.69	3.92
Commercial Social networking tool	87.8%	88.4%	87.4%	87.1%	89.7%	88.9%
Sat. with social networking tool	3.80	3.69	3.86	3.84	3.67	3.78
CRM / PSA integration	39.3%	49.3%	33.9%	37.3%	48.8%	32.8%

Source: Service Performance Insight, February 2017

The level of solution adoption is generally higher within embedded PS organizations. Table 26 shows CRM is significantly more prevalent in embedded service organizations than in independents (PSOs), but this is to be expected because embedded service organizations (ESOs) tend to be larger and have a strong product-oriented sales force who are responsible for bringing services into deals. Generally, these organizations are part of a larger product organization; larger organizations must rely more heavily on business applications to improve performance.

As one might expect, Table 27 shows higher levels of solution adoption as organizations expand. And for the most part, greater solution integration with core financials also increases as organizations get larger. Even with the proliferation of affordable and easy-to-use cloud solutions, the smallest organizations will always lag in their adoption rates. SPI Research has seen adoption increase in both large and small organizations. This figure highlights the importance professional services organizations have placed on building a strong financial application infrastructure to enhance visibility and management control resulting in higher productivity and profit.

Table 27: Business Application Use by Organization Size

Key Performance Indicator (KPI)	Under 10	10 - 30	31 - 100	101 - 300	301 - 700	Over 700
Commercial ERP solution used	63.2%	94.2%	93.7%	94.1%	96.0%	95.5%
Satisfaction with ERP solution	3.59	3.94	3.71	3.55	3.72	3.41
Commercial CRM solution	56.8%	83.3%	84.8%	93.9%	84.0%	90.5%
Satisfaction with CRM solution	3.63	4.06	3.86	3.93	3.79	3.90
CRM is integrated	25.0%	33.3%	31.0%	50.0%	54.2%	42.9%
Commercial PSA solution	57.9%	83.7%	79.7%	85.4%	80.0%	72.7%
Satisfaction with PSA solution	3.66	3.87	3.88	3.72	4.35	3.06
PSA is integrated	31.3%	48.6%	49.5%	57.8%	67.4%	66.7%
Commercial HCM solution	27.0%	43.9%	49.2%	60.7%	64.0%	90.5%
Satisfaction with HCM solution	3.22	3.39	3.35	3.35	3.47	3.25
HCM is integrated	15.9%	20.0%	25.0%	38.4%	50.0%	57.5%
Commercial BI solution	35.1%	24.7%	39.3%	59.3%	56.5%	59.1%
Satisfaction with BI solution	3.52	3.46	3.51	3.53	3.65	2.93
BI is integrated	20.8%	27.6%	40.3%	47.0%	52.8%	56.7%
Commercial KM solution	52.6%	53.7%	50.8%	58.8%	64.0%	71.4%
Satisfaction with KM solution	3.82	3.63	3.44	3.34	3.63	3.00
Comm. Remote service delivery tool	66.7%	80.5%	81.1%	81.5%	79.2%	81.0%
Satisfaction with RSD solution	3.83	3.73	3.81	3.75	3.84	3.67
Commercial Social networking tool	94.6%	91.3%	86.8%	88.0%	76.0%	85.0%
Satisfaction with social networking tool	3.68	3.75	3.87	3.81	4.11	3.50
CRM / PSA integration	14.1%	40.7%	38.2%	43.8%	48.0%	43.2%

Source: Service Performance Insight, February 2017

Table 28 shows embedded services organizations (Software/SaaS/Hardware PS) have higher adoption rates than independents. Generally, these organizations are part of a larger product organization, larger organizations tend to rely more heavily on business applications to improve performance. Architects and Engineers reported one of the lowest levels of application usage across most categories. This is clearly an area for improvement across the construction industries.

Table 28: Business Application Use by Vertical Service Market

Key Performance Indicator (KPI)	IT Consult	Software PS	Mgmt. Consult	Arch./ Engr.	SaaS	Mgd. Services	Hardware
Commercial ERP solution used	92.2%	89.5%	84.4%	94.3%	87.8%	100.0%	100.0%
Satisfaction with ERP solution	3.85	3.21	3.87	4.03	3.58	2.86	2.67
Commercial CRM solution	89.3%	94.7%	68.2%	50.0%	95.0%	85.7%	100.0%
Satisfaction with CRM solution	4.04	4.07	3.95	3.40	4.03	3.67	3.67
CRM is integrated	32.9%	47.2%	34.4%	52.0%	39.5%	33.3%	50.0%
Commercial PSA solution	80.5%	91.2%	66.7%	61.8%	90.2%	62.5%	100.0%
Satisfaction with PSA solution	4.03	3.64	3.78	3.74	3.71	3.29	3.33
PSA is integrated	54.3%	58.3%	33.8%	59.6%	51.2%	21.4%	58.3%
Commercial HCM solution	47.7%	66.7%	43.2%	41.9%	67.5%	71.4%	83.3%
Satisfaction with HCM solution	3.37	3.22	3.40	3.32	3.24	4.00	3.40
HCM is integrated	39.3%	31.7%	15.5%	42.1%	21.2%	16.7%	33.3%
Commercial BI solution	42.2%	57.4%	37.2%	31.0%	52.5%	50.0%	83.3%
Satisfaction with BI solution	3.51	3.53	3.46	3.33	3.48	3.20	3.67
BI is integrated	49.3%	50.0%	26.0%	56.3%	33.3%	30.0%	50.0%
Commercial KM solution	58.3%	71.4%	40.0%	33.3%	74.4%	75.0%	60.0%
Satisfaction with KM solution	3.44	3.47	3.41	3.69	3.61	3.57	3.00
Comm. Remote service delivery	82.0%	90.7%	65.9%	66.7%	90.2%	75.0%	100.0%
Satisfaction with RSD solution	3.81	3.98	3.91	3.85	3.61	4.14	3.00
Comm. Social networking tool	92.2%	94.4%	88.6%	69.0%	85.4%	87.5%	60.0%
Sat. with social networking tool	3.87	3.63	4.16	3.41	3.51	4.14	3.25
CRM / PSA integration	40.6%	49.1%	37.0%	13.2%	57.5%	25.0%	58.3%

Source: Service Performance Insight, February 2017

Table 29 shows VARs and Accounting firms rely on ERP applications with 100% adoption reported. Across the board, application adoption for Marketing and Communication firms lags other industry segments. This clearly needs to change as marketing organizations are experiencing more price pressure and commoditization than most other market segments. A key impediment is that many marketing and advertising firms are undergoing numerous mergers and acquisitions, making it hard to develop and rollout an integrated IT strategy.

Table 29: Business Application Use by Vertical Service Market Continued

Key Performance Indicator (KPI)	R&D	VAR	Account	MarCom	Staff	Other PS
Commercial ERP solution used	85.7%	100.0%	100.0%	88.9%	60.0%	96.3%
Satisfaction with ERP solution	3.83	4.00	3.33	3.63	4.00	3.50
Commercial CRM solution	66.7%	100.0%	77.8%	66.7%	80.0%	92.3%
Satisfaction with CRM solution	3.50	3.79	4.29	3.63	2.80	3.72
CRM is integrated	41.7%	53.6%	62.5%	25.0%	20.0%	31.3%
Commercial PSA solution	100.0%	78.6%	77.8%	77.8%	80.0%	81.5%
Satisfaction with PSA solution	4.29	3.91	3.86	3.38	3.50	3.87
PSA is integrated	78.6%	66.7%	71.4%	42.9%	37.5%	59.6%
Commercial HCM solution	71.4%	53.8%	55.6%	55.6%	20.0%	56.0%
Satisfaction with HCM solution	3.43	3.50	3.83	3.00	3.25	3.67
HCM is integrated	28.6%	30.0%	66.7%	30.0%	37.5%	32.4%
Commercial BI solution	50.0%	71.4%	44.4%	33.3%	40.0%	33.3%
Satisfaction with BI solution	3.50	4.20	3.50	3.33	3.33	3.20
BI is integrated	50.0%	85.0%	50.0%	50.0%	12.5%	20.0%
Commercial KM solution	66.7%	46.2%	66.7%	33.3%	60.0%	47.8%
Satisfaction with KM solution	4.33	3.43	4.00	3.50	3.25	3.33
Comm. Remote service delivery	100.0%	71.4%	88.9%	87.5%	75.0%	78.3%
Satisfaction with RSD solution	4.00	3.64	3.86	3.33	2.67	3.83
Comm. Social networking tool	85.7%	85.7%	88.9%	88.9%	100.0%	78.3%
Sat. with social networking tool	3.29	4.00	3.86	4.00	3.75	3.94
CRM / PSA integration	14.3%	35.7%	44.4%	27.8%	30.0%	25.9%

Source: Service Performance Insight, February 2017

Solution Satisfaction

Table 30 shows application satisfaction (1: very dissatisfied to 5: very satisfied). Satisfaction with CRM tops the list followed by PSA and Social Media. Satisfaction levels are relatively low for Knowledge Management, Business Intelligence and Human Capital Management. By category, Human Capital Management experienced the steepest decline in satisfaction this year presumably because these applications have for the most part remained standalone with limited integration with either ERP or PSA.

Table 30: Solution Satisfaction

Solution	2014	2015	2016
Client Relationship Management (CRM)	3.93	4.01	3.90
Professional Services Automation (PSA)	4.07	3.79	3.80
Social Networking	3.89	3.70	3.80
Remote Service Delivery and Collaboration	3.86	3.88	3.79
Enterprise Resource Planning (ERP)	3.68	3.70	3.67
Knowledge Management (KM)	3.74	3.69	3.51
Business Intelligence (BI)	3.76	3.70	3.49
Human Capital Management (HCM)	3.61	3.70	3.36

Source: Service Performance Insight, February 2017

Financial Management Applications (Enterprise or Service Resource Planning)

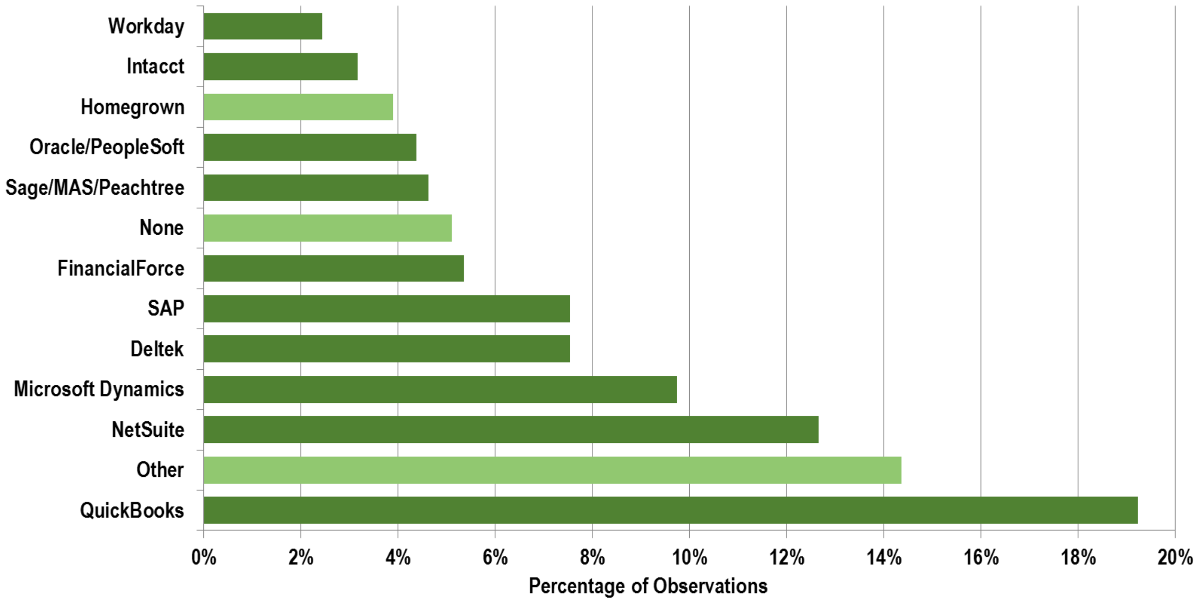
Finance and Accounting, (ERP or SRP), is the primary application required to accurately collect, bill and report financial transactions. ERP collects and manages all financial information (expenses, invoices, etc.) to provide management reporting and visibility into total service revenue, cost and profitability. Project-driven, human capital intense businesses like professional services have unique financial management requirements including support for complex contract types and billing arrangements. Revenue recognition is also complex and must conform to local accounting and taxation rules while providing support for multicurrency, multilingual transactions for global firms. Seamless integration between the system of record (PSA) for managing resources and projects and the financial management solution for payroll, expense management, invoicing, revenue recognition and project accounting is critical.

Enterprise Resource Planning (ERP)

- Activity Based Management
- Asset Management
- Cash Management
- Collection Management
- Contract Management
- Financial Analytics
- General Ledger
- Internal Controls
- Lease Management
- Payables
- Planning and Budgeting
- Property Management
- Receivables
- Revenue Management
- Risk Management
- Treasury

Figure 36 shows once again QuickBooks is the leading financial solution in this year's benchmark with almost 20% of survey respondents using it. QuickBooks market-share is expected to continue to decline as more cost effective low end solutions come to market with the project accounting and resource management functionality required by PS firms. NetSuite is the second most prevalent accounting solution both as an integrated Services Resource Planning application and as an accounting solution integrated with NetSuite's OpenAir PSA. Microsoft Dynamics, Deltek, SAP and FinancialForce are also strong competitors in this market. SAP and Oracle financials still dominate with the largest organizations but they are increasingly feeling pressure from Workday as Workday's people-centric ERP is more appropriate for PS organizations. Many of the smaller organizations (less than 10 employees) do not use a financial management solution.

Figure 36: Financial Management Solution Used



Source: Service Performance Insight, February 2017

The figure highlights (light green) that several firms use either homegrown solutions, other commercial solutions not included on the list, or no official financial solution at all. The financial management solution is critical for managing PS finance and accounting, regulatory reporting and profit analysis.

Client Relationship Management (CRM)

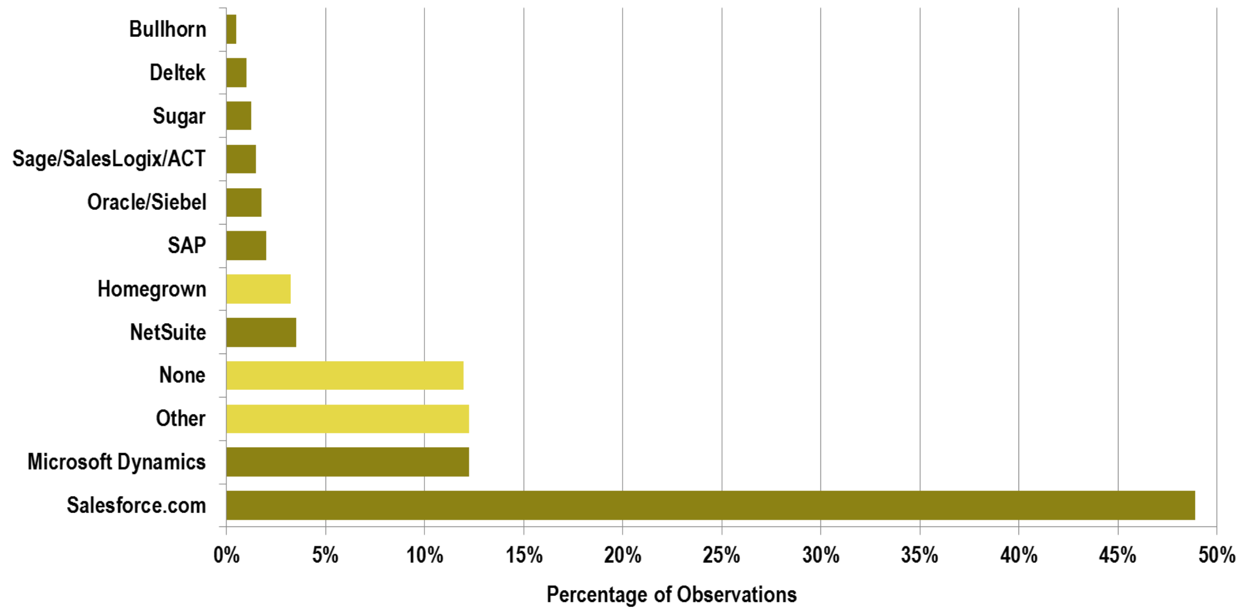
CRM supports the management of client relationships and is designed to improve sales and marketing effectiveness. CRM automates lead, contact and campaign management, sales pipeline, territory and contract management. Many CRM applications also provide powerful call center functionality for issue management; call handling; trouble ticketing and problem resolution. CRM allows PSOs to track clients through the engagement (bid to bill) lifecycle, and to specifically target customer segments and offers by understanding details of the relationship. CRM supports analysis by client, geography and portfolio.

Client Relationship Management (CRM)

- Client Analytics
- Marketing
- Partner Relationship Management
- Proposals
- Sales
- Service

Figure 37 shows Salesforce.com dominance once again with use by 47% of the organizations surveyed. Microsoft Dynamics CRM, is again number two, with slightly less than 15%. Its cloud offering is rapidly growing in market share. NetSuite is the third leading CRM provider in this year's benchmark. Because of the dominance of Salesforce.com, there are very few independent CRM providers found in the benchmark. Most of the others are part of an ERP suite, which support SPI's research that shows approximately 50% of organizations prefer independent best-of-breed solutions, while the other 50% prefer comprehensive integrated solutions provided by the ERP vendors.

Figure 37: Client Relationship Management (CRM) Solution Used



Source: Service Performance Insight, February 2017

Table 31 compares organizations using CRM to those who do not. 15% of the organizations surveyed do not use any type of CRM solution. The table shows organizations using CRM are larger than those who do not use it. As the table shows, CRM definitely benefits organizations in terms of growth. CRM users have larger sales pipelines, more revenue from new clients and substantially more revenue per consultant and employee. It also has a positive impact on the profitability of the work delivered, as improved sales effectiveness leads to a more efficient use of resources down the line. Profitability is clearly enhanced when CRM is integrated with PSA and the ERP application.

Table 31: Impact – Client Relationship Management (CRM) Use

KPI	CRM Used	CRM Not Used	▲
Survey responses (commercial CRM)	340	61	
PSO size (employees)	561	234	139%
Year-over-year change in PS revenue	9.4%	6.1%	54%
Year-over-year change in PS headcount	6.7%	5.0%	35%
Deal pipeline / qtr. bookings forecast	194%	156%	25%
New Client Revenue	28.6%	17.7%	61%
Quarterly revenue target in backlog	47.1%	38.3%	23%
Annual revenue per billable consultant (k)	$208	$191	9%
Annual revenue per employee (k)	$164	$158	4%

Source: Service Performance Insight, February 2017

Table 32 further depicts CRM impact, comparing those organizations not using CRM at all to those organizations using non-integrated CRM, and comparing them to organizations using CRM integrated to the core financial solution. This table highlights the benefits organizations receive as they move from no CRM to nonintegrated CRM to integrated CRM. While these benefits might not be revolutionary, they do underscore greater visibility and improved alignment between sales and service delivery. These benefits are amplified as organizations grow.

Table 32: Impact – Commercial CRM Integration

KPI	CRM Not Used	Used, Not Integrated	Used, Integrated
Survey responses	61	142	176
Revenue from new clients	17.7%	28.5%	28.6%
Annual change in PS revenue	6.1%	9.0%	10.0%
Annual change in PS headcount	5.0%	6.0%	7.2%
Annual number of active projects	210	294	618

Source: Service Performance Insight, February 2017

Professional Service Automation (PSA)

Professional Services Automation provides the systems basis for initiation, planning, resource management, scheduling, execution, close and control of projects and services. PSA provides a resource and project dashboard including the demand forecast. It helps manage service delivery by overseeing opportunities, staffing, project management, and collaboration. PSA is typically the system of record for resource skills, competencies and preferences with integration to the employee and contractor database. It is used to collect time and expense by project and resource down to the task level so it is the system of record for resource utilization and project cost and estimating. Most PSA applications now offer billing modules with some level of revenue recognition by type of billing method – time and materials, work in process or fixed price. They also support accurate time and expense capture. PSA extensions for the construction industry include modules for material costs and procurement.

Professional Services Automation (PSA)

- Collaboration
- Invoicing
- Portfolio Management
- Project Accounting
- Project Analytics
- Project Costing
- Project Management
- Resource Management
- Time & Expense

Core modules

PSA vendors segment their products into application modules that emphasize the management of costs, clients and resources:

- ***Opportunity Management***: The management of client information, sales activities, proposals, and contracts to improve sales effectiveness. Some PSA solutions let a CRM tool handle opportunity management; and instead focus on resource demand management and forecasting functions based on the opportunities tracked in the CRM application.
- ***Engagement Management***: The management and control of the overall set of project deliverables.

- ***Resource Management***: The management processes associated with resources (people, material, equipment, etc.) used during the services delivery lifecycle.
- ***Project Management***: The initiation, planning, execution, close and control of projects.
- ***Project Accounting***: The tracking of project-related costs to determine budget to actual costs and profitability.
- ***Time and Expense Management***: The capture and tracking of project-related time and expense information.
- ***Invoice Management***: The preparation and presentation of invoices based on information captured from the time and expense module or from pre-assigned time or project completion milestones.
- ***Practice / Management Reporting:*** Core reports include project dashboards, resource management and utilization dashboards, capacity planning and forecasting, project profitability, etc.

Additional modules

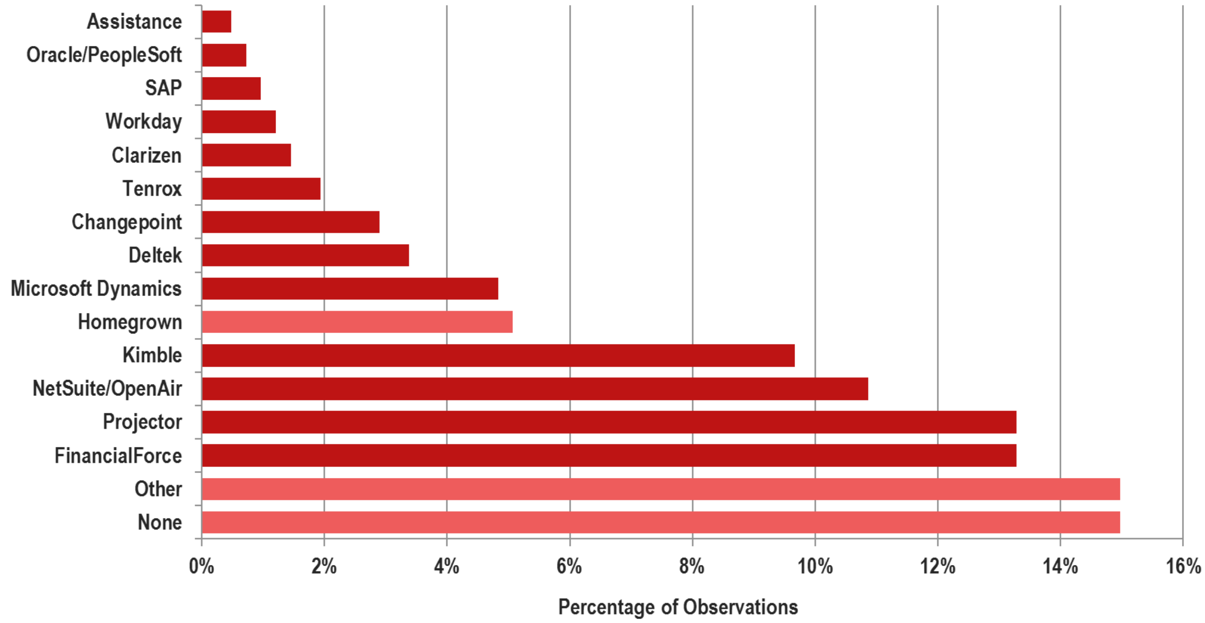
While every PSA solution is unique, some have expanded their capabilities through additional modules. Additional modules include:

- ***Social:*** The ability to easily incorporate social channel information from LinkedIn, Facebook, Twitter, etc. along with social collaboration to facilitate knowledge sharing.
- ***Collaboration Management***: The management of information used to create effective communication and iterative knowledge sharing during the services delivery lifecycle.
- ***Knowledge Management***: The centralization of information improves operational efficiency. This information can be anything related to the ongoing business and includes information on resources, projects, capital and clients.
- ***Revenue Management***: PSA solutions provide deferred revenue and work in progress tracking and revenue reporting to automate revenue reporting for time and materials, fixed bid, milestone-based and term engagements.
- ***Performance Management***: The use of information to determine effectiveness and budget to actual performance for different aspects of the organization.

PSA Solution Adoption

Figure 38 shows FinancialForce and Projector are tied as the most adopted PSA solution in this year's survey with approximately 13% (55 firms each) of the survey. NetSuite is the second-most prevalent solution with 11% (45 firms) of survey respondents. None and other were reported by 15% (62 firms) each. Interestingly, the average size of the organizations who do not use a PSA is quite large at 283 PS employees. Kimble, a PSA provider built on the Salesforce 1 platform, has gained considerable market momentum particularly in Europe with 10% (40 firms) of benchmark participants using it. Microsoft Dynamics, Deltek and Changepoint all gained ground this year.

Figure 38: Professional Services Automation (PSA) Solution Used



Source: Service Performance Insight, February 2017

PSA Benefits

When it comes to PSA software, project- and services-based organizations now have a range of attractive choices – systems that are designed to support the needs of the always-on, virtual, mobile service economy by providing several key benefits:

- Δ Project revenue and cost data is contained in a central database.
- Δ The user interface is consistent across all applications.
- Δ Costs and deliverables reside in the same place so productivity can be measured, analyzed and improved at the territory, account, project and individual resource level.
- Δ Reporting and analytics are embedded within the application, alerting decision-makers to issues before they become problems.
- Δ A more seamless audit trail to better identify success and failure points.
- Δ Enhanced support for global operations with multicurrency, multilingual applications, which conform to local regulations and taxes.
- Δ Lower administration costs due to fewer manual, error-prone spreadsheets and costly data re-entry.
- Δ One-source of the truth – real-time information visibility, constantly updated.

There are many more benefits provided by integrated PSA solutions. It is intuitively obvious that with one consistent set of information, decision-makers have the visibility and control they need to improve organizational performance.

Table 33 compares PSOs using PSA solutions to those that do not. The results in this table are very powerful. Professional Services Automation solutions continue to drive significant operational performance benefits, which ultimately yield higher revenue and profit for professional services organizations. The use of PSA is on the rise due to the need to better manage projects and resources, especially in more technical disciplines, as it has become increasingly difficult to find, hire, retain and deploy talent. PSA solutions help match the right resources, with the right skills at the right time to the right projects. PSA solutions yield several core benefits to PSOs, but most executives only need to look to the 3% increase in billable utilization, as the reason to select PSA. Almost all key metrics improve with PSA adoption. As shown in the table these systems pay for themselves with higher net profits.

Table 33: Impact – Professional Services Automation (PSA) Use

KPI	PSA Used	Not Used	▲
Survey responses	331	83	
Year-over-year change in PS revenue	9.2%	7.8%	17%
Year-over-year change in PS headcount	6.5%	6.1%	7%
% of employees billable or chargeable	75.2%	72.2%	4%
Employee billable utilization	70.9%	68.3%	4%
Average revenue per project (k)	$168	$112	50%
Project Margin	35.4%	34.8%	2%
EBITDA	**14.2%**	**14.0%**	**2%**

Source: Service Performance Insight, February 2017

Table 34 highlights the benefit of integrated PSA versus standalone PSA. Again, the results demonstrate integrated PSA enables organizations to operate at higher levels of efficiency. Perhaps most notable in this table is the increase in the percentage of billable employees and project revenues as PSOS move from spreadsheets to PSA to integrated PSA.

Because the delivery of services is where PSOs make their money, and because PSA is the primary application utilized by project managers and others responsible for services delivery, it is easy to understand why the operational and financial benefits are so significant. SPI Research has always recommended organizations with more than 20 employees utilize PSA. With the affordable cloud-based solutions now available, PSA should also be considered by smaller organizations.

Table 34: Impact – Commercial PSA Integration

KPI	PSA Not Used	Used, Not Integrated	Used, Integrated
Survey responses	83	80	138
% of employees billable	72.2%	74.4%	75.2%
Annual change in PS revenue	7.8%	8.6%	9.8%
Average revenue per project (k)	$112	$146	$199
Projects delivered on-time	77.5%	78.7%	79.8%
Use a std. delivery methodology	67.5%	73.2%	74.0%
Project margin	34.8%	36.0%	36.1%

Source: Service Performance Insight, February 2017

Human Capital Management (HCM)

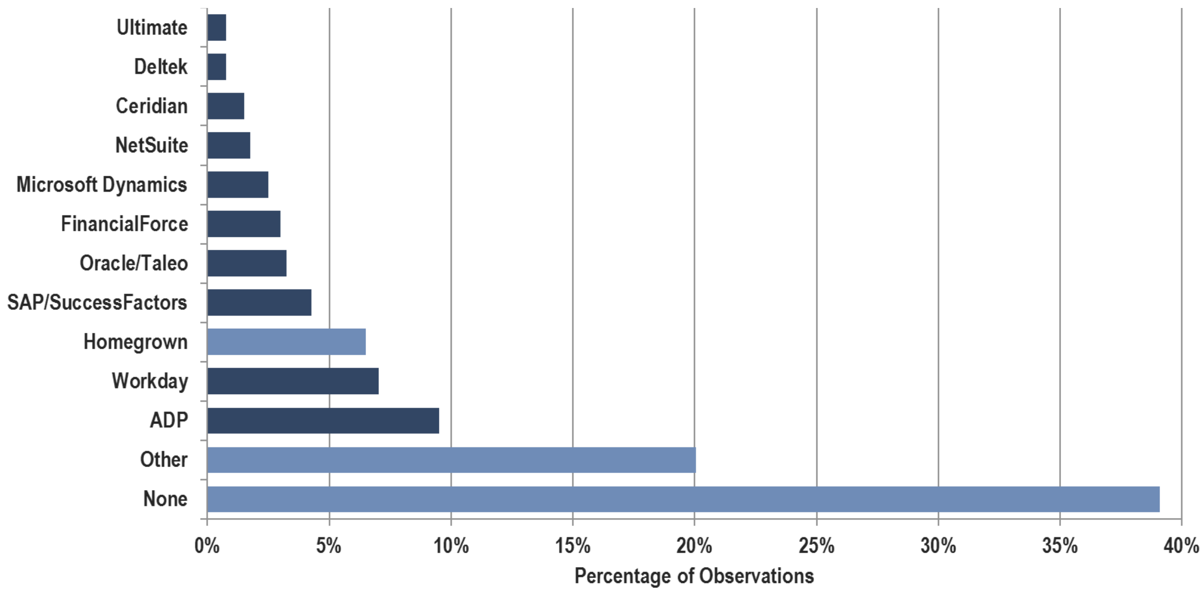
Human Capital Management (HCM) solutions (also known as talent management solutions) give employers the tools to effectively recruit, hire, onboard, train, evaluate and compensate employees. By tracking performance, skills and career progression, HCM helps companies create and maintain a high-performance workforce. Key software modules include recruiting, employee learning, skills tracking, compensation, performance management, policy compliance, and succession planning — each of which help organizations manage personnel growth and development.

Human Capital Management (HCM)

- Benefits
- Payroll
- Recruitment
- Time and Labor
- Training Administration
- Workforce Analytics

HCM benefits the PSO by maintaining a database of skills, benefits and pay rate information that is used for resource scheduling, recruiting and performance and career management. Effective HCM solutions provide rich applications that allow consultants to manage their own careers and skill development (training) and bid on the projects of greatest interest for them.

Figure 39: Human Capital Management (HCM) Solution Used



Source: Service Performance Insight, February 2017

Figure 39 shows that many professional services organizations do not yet use HCM solutions. However, their prevalence among the largest PSOs is significant. With new cloud-based solutions coming to market that specifically target the management of human capital, coupled with the need to better manage employees from recruitment and hiring through training to retirement, HCM use will undoubtedly increase significantly in the coming years. Of the solutions highlighted in this year's benchmark, ADP and Workday are the two leaders, however, SAP Successfactors, Oracle/Taleo, FinancialForce and Microsoft are not far behind. These cloud-based solutions are beginning to gain acceptance as PSOs realize talent is their most valuable asset. Most of the solutions found in this benchmark are provided by ERP solution providers, who generally offer some type of integration with other applications in their suites.

The leading provider, ADP, with approximately 10% of survey participants, Ceridian, Ultimate and Fairsail, offer HCM solutions that are not part of an ERP suite. Even though a majority of the PSOs that utilize HCM are larger in employee headcount, it is not only for large organizations, it is for organizations focused on finding, hiring and keeping the best employees. With PSOs struggling to find, hire and retain highly qualified individuals, HCM will only gain in importance.

Table 35: Impact – Human Capital Management (HCM) Use

KPI	HCM Used	HCM Not Used	▲
Survey responses	217	182	
PSO size (employees)	816	137	495%
Annual change in PS revenue	8.8%	9.2%	-4%
Annual change in PS headcount	7.1%	5.9%	21%
% of employees billable or chargeable	74.9%	74.3%	1%
Employee billable utilization	70.9%	69.8%	2%
Management-to-employee ratio	10.61	9.47	12%
Annual revenue per employee (k)	$169	$156	8%
EBITDA	**14.5%**	**13.3%**	**9%**

Source: Service Performance Insight, February 2017

Table 35 highlights some of the differences between firms utilizing HCM and those who do not. In this year's survey 54% of the organizations utilize HCM, although the table also highlights they are almost six times as large. Key benefits show up in the ability to manage and sustain higher growth rates, both in revenue and headcount.

Higher billable utilization occurs because the right people with the right skills are available to do the work. Larger management span of control reduces the cost of non-billable management and enhances the bottom-line. HCM produces impressive gains in revenue per employee and net profit. The fact is that as organizations grow, human capital management becomes increasingly important. HCM solutions provide greater visibility into employee skills, preferences, training and career advancement. They ensure equitable compensation and are an integral component of pay for performance and reward systems.

Table 36: Impact – Commercial HCM Integration

KPI	HCM Not Used	Used, Not Int.	Used, Int.
Survey responses	182	91	60
Size of PS organization (employees)	137	344	1,204
Annual company revenue (mm)	$86.5	$166.2	$415.5
Total professional services revenue (mm)	$23.4	$64.5	$207.1
Annual change in PS headcount	5.9%	7.3%	7.9%
Management to employee ratio	9.47	9.94	11.15
Project staff size (people)	3.61	4.06	5.08
Project duration (months)	4.98	5.22	6.34

Source: Service Performance Insight, February 2017

Talent management is central to PS performance as the skills and attitudes of the consulting workforce provide tangible evidence of consulting value. And with better management of personnel, PSOs can ensure talent is on staff and available when needed, which helps the organization grow faster. HCM solutions, in conjunction with PSA, drive greater billable utilization, which ultimately results in higher revenue per employee and profitability. Most of the new breed of cloud-based HCM applications offer mobile access from anywhere, making it easy for employees to keep their profiles and time-off requests up-to-date. Several HCM vendors are adding rich predictive analytics, providing visibility into levels of employee engagement to spot employees are likely to quit. Their recruiting tools are very powerful with out-of-the-box integration with top job sites like Monster and LinkedIn.

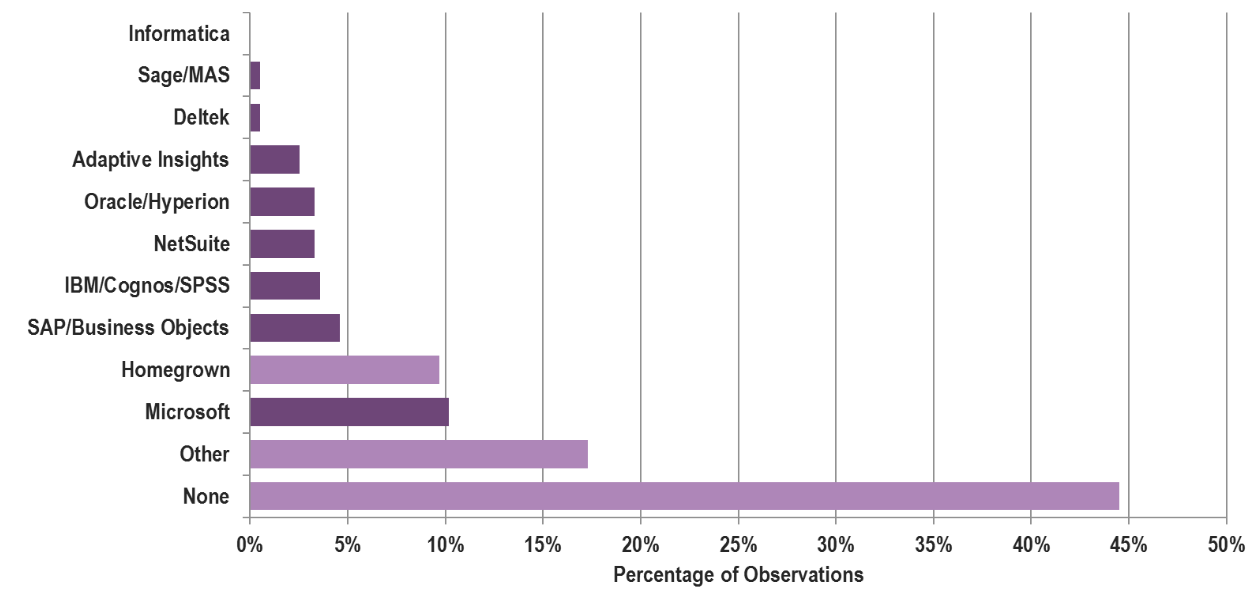
Business Intelligence (BI)

Business Intelligence integrates information from core business applications to improve strategic analysis, demand and capacity planning, budgeting, forecasting and financial planning. BI solutions continue to increase adoption in PSOs, whether they are offered as stand-along tools or part of the business applications themselves for reporting and analysis. As professional services organizations mature, BI becomes a more critical tool to provide real-time visibility to all aspects of the operation — allowing executives to spot trends and take corrective action early. It also is an important solution for annual planning, as PS executives try to uncover areas where additional growth and profit can be extracted.

Business Intelligence (BI)

- Activity Based Management
- Balanced Scorecard
- Business Intelligence
- Demand Planning
- Financial Analysis

Figure 40: Business Intelligence (BI) Solution Used



Source: Service Performance Insight, February 2017

Figure 40 shows relatively low adoption levels of Business Intelligence in this year's survey, similar to those in the past. However, SPI Research has seen increased adoption over the past eight years. None, other and homegrown are the most prevalent BI solutions. Of the application suite providers, Microsoft, SAP/Business Objects, IBM/Cognos/ SPSS, NetSuite and Oracle/Hyperion each have a wide following. Adaptive Insights rounds out the line-up with their Best-of-Breed solutions. The trend continues toward leading providers offering BI in the cloud, providing greater accessibility for executives around the world as well as ease of deployment and mobile access.

Table 37: Impact – Business Intelligence (BI) Use

KPI	BI Used	BI Not Used	▲
Survey responses	180	213	
PSO size (employees)	924	180	412%
Total professional services revenue (mm)	$144.3	$42.2	242%
Annual change in PS headcount	7.4%	5.7%	31%
Deal pipeline / qtr. bookings forecast	195%	185%	5%
EBITDA	**15.5%**	**13.6%**	**14%**

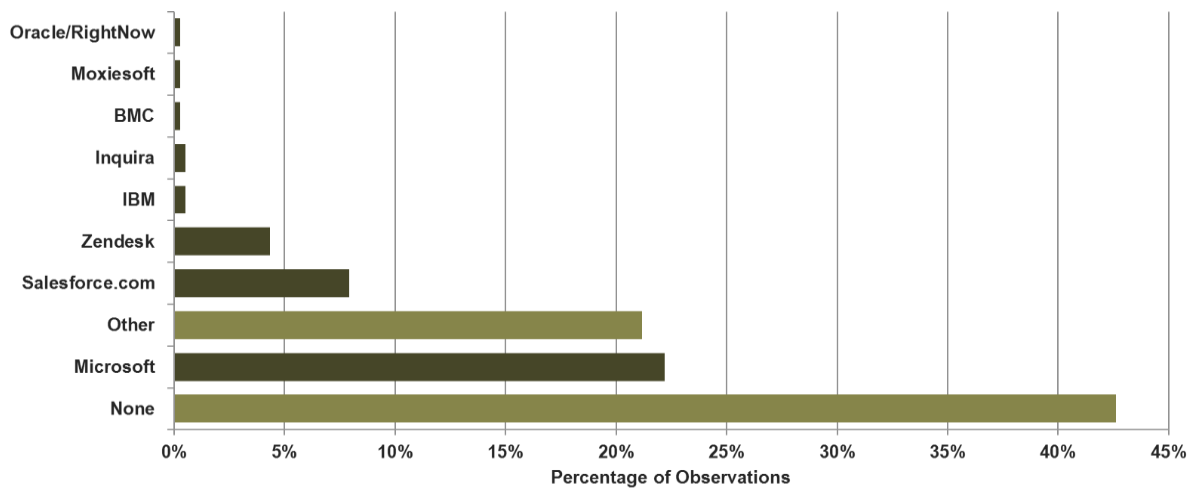
Source: Service Performance Insight, February 2017

The results in this table highlight some of the core benefits organizations have achieved that use BI solutions. While each improvement is impressive, it is increased profitability that stands out. The fact is BI is a strategic solution that helps PSOs plan, budget and forecast the business. Its powerful "what if" analysis tools help PSOs model capacity and resource plans to achieve optimal results. Going forward BI will continue to gain in importance and penetration into the services sector.

Knowledge Management (KM)

Knowledge Management should be a core application for all PSOs as knowledge, unique intellectual property, methods and tools are the primary source of service provider differentiation. 43% of the organizations surveyed reported they do not use a knowledge management application.

Figure 41: Knowledge Management (KM) Solution Used



Source: Service Performance Insight, February 2017

As the workforce becomes more global and intellectual property more valuable, it becomes increasingly important to have shared processes, procedures and templates. SPI Research sees Knowledge

Management as a key source of differentiation, consistency and quality. With the advent of inexpensive cloud-based knowledge management applications we expect significant investment in this area.

Figure 41 shows once again Microsoft's SharePoint is the market leader with 22% of the firms in this survey. SharePoint's continued dominance has led to a rich after-market for add-ons, which make the product easier to use and more powerful. There are a variety of solutions available, but SPI Research found Microsoft's SharePoint to be the industry leader by a wide margin. Salesforce.com is the second most prevalent KM application, with 9% of the market.

Table 38 compares organizations using knowledge management solutions to those that do not. In this year's survey the organizations using Knowledge Management were larger. The table shows, organizations using KM tend to be more efficient in all aspects of their business, especially in the sale and delivery of services. The organizations also showed improved financial results compared to those organizations not using KM.

Table 38: Impact – Knowledge Management (KM) Use

KPI	KM Used	KM Not Used	▲
Survey responses	225	167	
PSO size (employees)	736	212	247%
Annual change in PS revenue	9.6%	7.8%	24%
Annual change in PS headcount	7.0%	5.5%	28%
Average project staff (people)	4.35	3.87	12%
Annual revenue per billable consultant (k)	$212	$191	11%
Annual revenue per employee (k)	$171	$149	15%
EBITDA	**15.1%**	**13.3%**	**14%**

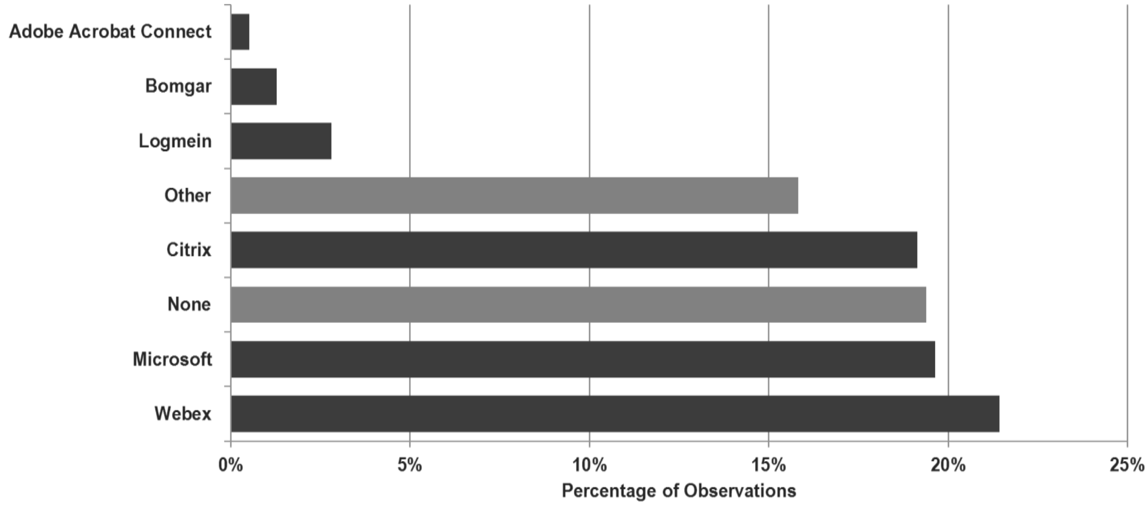
Source: Service Performance Insight, February 2017

Remote Service Delivery (RSD) and Collaboration Tools

Like Knowledge Management (KM), Remote Service Delivery and collaboration tools have become increasingly important for virtual project delivery, communication and collaboration. They provide a platform for consultants and clients to work together, regardless of physical location. Professional services consultants utilize these technologies to serve remote clients virtually. In the past consultants, could only serve one client at a time, with expensive and time-consuming travel the norm. Advances over the past years have added video, recording, editing, polling and white-boarding functionality, meaning team members can now see each other (if desired) along with sharing information and computer screens.

Figure 42 shows results similar to past years. WebEx, Microsoft and Citrix lead in adoption. Microsoft, in particular, with the purchase of Skype and LiveMeeting has greatly enhanced its remote service delivery capabilities. Given their relatively low cost and ease of deployment, remote service delivery tools should be on the "must have" list for PSOs of any size.

Figure 42: Remote Service Delivery and Collaboration Tool Used

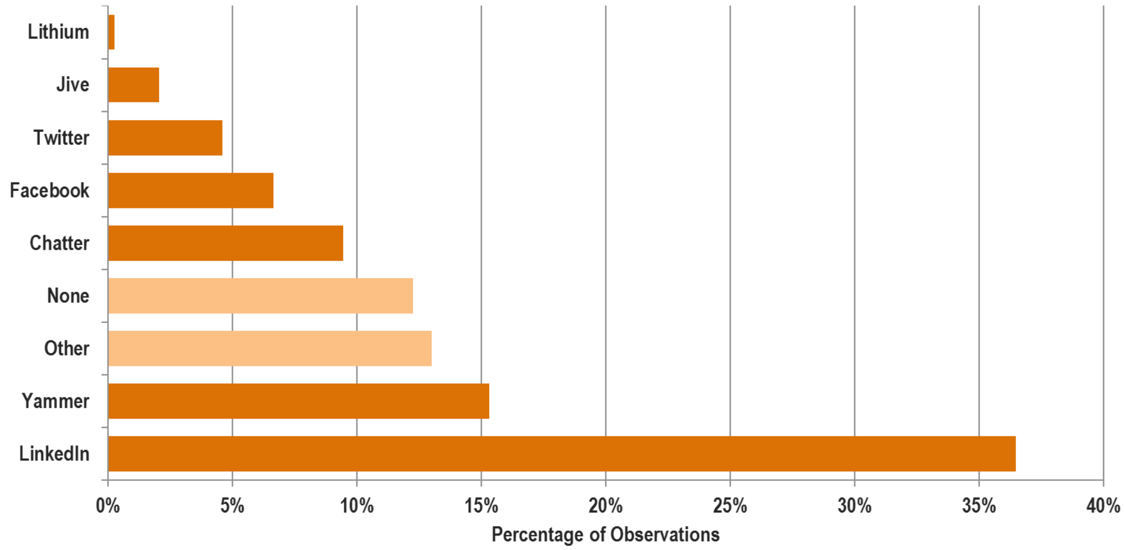


Source: Service Performance Insight, February 2017

Social Networking

Three years ago, SPI Research began to include social networking/media as part of our application analysis. These tools are being relied on, now more than ever, as organizations work both internally and externally to find, hire, communicate and market to the best people. Social media has become essential to help professional services organizations build their brand through thought leadership and market outreach. Collaboration tools like Yammer, Chatter and Jive have replaced email as the preferred method of communication for millennials.

Figure 43: Social Networking (SM) Solution Used



Source: Service Performance Insight, February 2017

Even the most controlling organizations must recognize and support the trend toward personal devices and social networking if they wish to attract and retain young, connected workers. The downside of the social networking explosion is that it can easily become a time-sink and source of unproductive web-surfing hours so the trick is to exploit collaboration, knowledge-sharing and crowd-sourcing without lost productive time. Figure 43 shows LinkedIn continues to be the dominant social networking platform, with more than 30% of the organizations surveyed using it. Yammer at 15% and Chatter at 9% are second and third.

Application Integration

While the core business solutions support individual departments in their efforts to become more productive and profitable, as these solutions are integrated with the core financial management solution (ERP) they create additional insight and value. For instance, CRM integrated with ERP provides sales executives with the insight necessary to develop a pricing strategy, supporting the highest probability of winning the bid with maximum profitability. Without this integration, it would be much more difficult to conduct this type of analysis. Today's PSOs simply cannot operate with functional silos as the lines between sales, delivery and finance become blurred.

Figure 44: Success depends on inter-departmental cooperation

Source: Service Performance Insight, February 2017

It is also important that applications communicate with each other. PSA, integrated with CRM, enables PSOs to better schedule resources and projects to ensure they begin and end on time. With integrated HCM, human resources, recruiting and resource management all benefit from visibility into in-demand skills, consultant preferences and career aspirations.

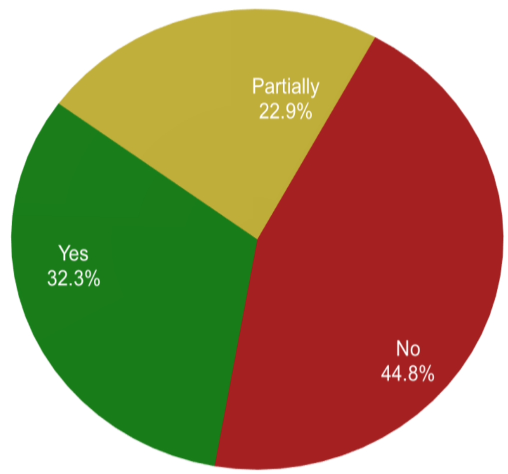
Table 39 shows lower levels of integration in this year's benchmark. SPI Research believes integration between CRM, PSA and core financials is an essential ingredient in superlative performance. Integration provides visibility to all parts of the organization and helps break down organizational silos.

Table 39: Integration with Core Financials

Solution	2014	2015	2016
Professional Services Automation (PSA)	59.1%	56.4%	53.5%
Business Intelligence (BI)	57.9%	50.8%	42.4%
Client Relationship Management (CRM)	33.5%	42.3%	39.7%
Human Capital Management (HCM)	39.8%	40.7%	34.9%

Source: Service Performance Insight, February 2017

Figure 45: Is CRM Integrated with PSA?



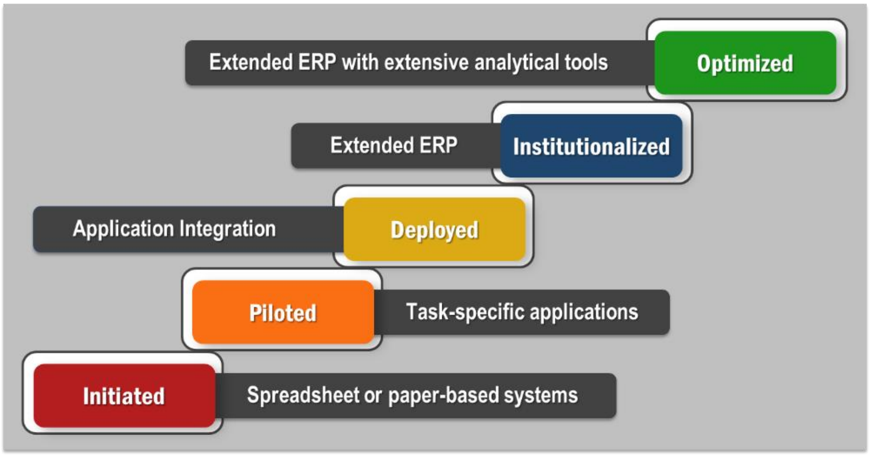
Source: Service Performance Insight, February 2017

Achieving client delight and profit in professional services requires tight coordination between demand and supply which can only be achieved through integrated business applications. Many firms that have worked with SPI Research over the past several years have concentrated on application integration as they have learned its benefits and worked with their vendors to ensure the integration happens.

Participants were also asked if CRM and PSA were directly integrated, highlighting the importance of connecting sales and service delivery for a more comprehensive view of clients (Figure 45). This year's survey showed that only 33% of the PSOs surveyed integrated CRM with PSA. However, this is an improvement over the dismal 23% level of CRM and PSA integration reported in previous years. Not surprisingly, the organizations without this integration reported lower performance than those who partially or fully integrate CRM and PSA. Obviously, cost and complexity come into play when the solutions are developed by different providers. Typically, application suites, such as Deltek, FinancialForce.com, Microsoft, NetSuite and SAP offer out-of-the-box integration between their core business solutions making a 360-degree view of clients and projects possible.

The Professional Service IT Maturity™ Model

Figure 46: Professional Service IT Maturity™ Level



Source: Service Performance Insight, February 2017

While every PSO uses technology somewhat differently — with different applications and varying levels of integration — SPI Research believes one of the best ways to improve organizational performance is to deploy integrated applications to provide a 360-degree view of clients and projects to facilitate decision-making. Figure 46 highlights the PS IT Maturity™ Model. As PSOs move from “manual” solutions (spreadsheet or paper-based) toward integrated and single user-interface solutions, performance improves. SPI Research's PS IT Maturity™ Model levels are:

- **Level 1: Initiated** – ***Ad Hoc***: Most PSOs begin with manual or spreadsheet-based tools to run the business. Time and expense capture is manual, sporadic and ad hoc. Billing is performed manually or through the backend financial application.
- **Level 2: Piloted – *Application Specific***: As they grow and engage in more structured processes, organizations deploy task specific applications (time and expense), project management (PM) and Knowledge Management (KM), Client Relationship Management (CRM), etc. to better manage work and to create an audit trail, albeit rudimentary, for tracking work. Many of these task specific applications provide a database to improve reporting.
- **Level 3: Deployed – *Integrated Applications***: As organizations mature they deploy greater integration of business applications with the core financial (Enterprise Resource Planning (ERP)) solution. At this level, they begin to evaluate the time and cost factors associated with integration of various point releases. Emphasis at this level is on creating effective management reports to provide visibility into all facets of the business.
- **Level 4: Institutionalized – *Extended ERP***: An increasing number of PSOs at this level of maturity begin to add various components of ERP applications rather than continually integrate disparate applications. SPI Research uses the term extended ERP or SRP (Service Resource Planning). Now professional services organizations are purchasing both core financials as well as other pre-integrated application suites from the same ERP solution provider. Currently CRM is the most popular application that is purchased pre-integrated with financials, closely followed by Professional Services Automation (PSA). Other applications that are being acquired from the same ERP vendor include human capital management, business intelligence, and procurement.
- **Level 5: Optimized – *Extended ERP and Analytics***: Finally, as the PSO has significant integration in its application infrastructure it turns the solution loose to efficiently surface and report data to optimally measure and transform the organization. Most, if not all, core applications are integrated to provide visibility into the work being sold, executed, and closed.

While not every PSO is run with a completely integrated set of business applications, SPI Research has seen the level of integration increase significantly over the past eight years. This development will continue regardless of the economy as many PS firms see IT as a way to not only cut costs, but also as a means to improve operational efficiency and effectiveness.

Figure 47: PS Dashboard

Source: Service Performance Insight, February 2017

8. Leadership Pillar

Growth, growth and more growth. Each year SPI Research finds a direct correlation between growth and success in Professional services. Given that the PS industry is built on the application of unique knowledge and domain expertise it is sometimes hard to understand why the growth dynamic is so important. But… it is. In the professional services and technology industry, leading firms create dominant market positions. There is a compounding effect of how customers make decisions, the networks and ecosystems that are created, and the ability to scale as a firm that mean that there is a significant advantage for the companies that grow the fastest and are able to establish market-leading positions. The premium PS firms create unique competitive advantage and can command significantly higher bill rates. They become known as the innovators in their markets, industries, technologies and business processes. They produce tangible results and can harvest the knowledge gained to do an even better job the next time. They build a culture which embodies their brand and values which further attracts prospective consultants and clients who identify with those attributes.

Table 40: Leadership Pillar 4-year trend (1 to 5 scale with 5 = Best)

Key Performance Indicator (KPI)	2013	2014	2015	2016
Confidence in PS leadership	4.05	4.01	3.86	4.03
Employees have confidence in the PSO's future	4.01	3.87	3.82	3.90
Embraces change - nimble and flexible	3.90	3.76	3.68	3.84
Well understood vision, mission and strategy	3.85	3.81	3.75	3.82
Ease of getting things done	3.75	3.68	3.69	3.75
Effectively communicates w/employees	3.74	3.67	3.64	3.75
Goals and measurements in alignment	3.73	3.62	3.7	3.71
Innovation focused	3.69	3.66	3.64	3.70

Source: Service Performance Insight, February 2017

But growth comes with a price. The unique knowledge, vision and passion that a consulting leader brings to founding a hot new firm must be nurtured and continuously kindled within new employees. The leader must simultaneously learn to let go and grow at the same time. Micro-managing does not work in PS, cultivating a reputation and repeatable skills, competencies and processes does. Most independent consulting firms can easily grow from 20 to 50 consultants, but after that things get more interesting. This is when firms must move from heroic to repeatable and founders must move from doers and fire fighters who wear all the hats to leaders and visionaries. The leaders who can't make this transition must have the courage to bring in new talent who can take the firm to the next level.

As professional services organizations grow, leadership challenges intensify. Service Performance Insight's research into this topic over the past ten years has shown a powerful correlation between financial success and confidence in leadership. Obviously, in small organizations the firm's leadership can do a much better job of personally communicating vision and strategy. As the organization grows in size and scope, complexity and geographic dispersion, communication and alignment become issues. PSOs must implement additional policies to ensure communication, collaboration and alignment do not suffer with expansion. Systems and processes must be implemented to provide visibility and management control.

Leadership development, succession planning and funding growth are big challenges for independent PSOs. Many consider mergers and acquisitions to augment organic growth. Employee ownership is a viable option as the founder nears retirement. A central concern is "How best to monetize value while building a firm for the future?"

Table 41 shows the Leadership Maturity model and the best leadership style for each level of maturity.

Table 41: The Leadership Maturity Model

	Level 1 Initiated	Level 2 Piloted	Level 3 Deployed	Level 4 Institutionalized	Level 5 Optimized
Leadership	Initial strategy is to support product sales and provide reference customers while providing workarounds to complete immature products. Leaders are "doers".	PS has become a profit center but is subordinate to product sales. Strategy is to drive customer adoption and references profitably. Leaders focus on P&L and client relationships.	PS is an important revenue and margin source but channel conflict still exists. Services differentiate products. Leadership development plans are in place. Leaders have strong background & skills in all pillars.	Service leads products. PS is a vital part of the company. Solution selling is a way of life. PS is included in all strategy decisions. Succession plans are in place for critical leadership roles	PS is critical to the company. Service strategy is clear. Complimentary goals and measurements are in place for all functions. Leaders have global vision and continually focus on renewal & expansion.
Leadership Styles by Maturity Stage	The Entrepreneur. Leaders are "doers". In small companies, PS leaders are technically competent and directly perform engagement activities in addition to recruiting and ramping new consultants. Typically, they possess stronger technical than business or leadership skills.	The Generalist. The emerging PS leader must start to focus on HR, Finance and Operations while nurturing close relationships with clients and partners. At this stage, setting strategic vision and strategy are less important than strong operational management skills.	The General Manager. By the deployed stage, the PS leader must start to focus on setting vision and strategy and forging strong partnerships with clients and the cross-functional leadership team. The PS leader must exhibit strong operational and process management skills. He must have a strong background in sales, finance and operations. Focus at this stage is on recruiting strong functional leaders to scale the organization.	The Strategist. By the institutionalized phase, the PS leader has developed a strong leadership team and institutionalized operating processes in all five service performance pillars. His primary focus is strategy, business planning and establishing strategic partnerships and alliances. At this stage, he must "lead", "inspire" and "communicate". He must be able to attract and retain high quality functional leaders.	The Leadership Team. As the PS organization matures, the leader becomes more strategic and able to effectively communicate and inspire. All functional areas have strong, sustainable operating processes. His focus is on ensuring alignment within the organization while continually forging new business partnerships. The leadership team constantly focuses on innovation and operational excellence.

Source: Service Performance Insight, February 2017

The leadership challenges are much the same but also very different in embedded PSOs. These organizations exist to ensure the successful implementation and adoption of the company's products. They are not given the latitude to develop services for services sake, but rather must serve the best interests of the company's products, even if those interests undermine PS productivity and profitability. In embedded PSOs the primary leadership challenge is one of charter conflict and forging cross-functional relationships. Embedded PS executives are tasked with developing high quality consulting businesses but consulting is most often subordinate to product proliferation. A new, more strategic role is emerging to drive client adoption and optimization. This role requires significantly greater alignment with sales, support and product development so collaboration and team-building skills are paramount.

Establishing the Leadership Index

In the benchmark survey, SPI Research asks a series of questions regarding various aspects of professional services vision, strategy and leadership including confidence, clarity and alignment. Strategic decisions set the direction and tone for the PSO and affect all functions because vision and strategy dictate the goals and objectives for the organization, the types of clients to pursue, the types of services to offer and the interrelationship between functions.

The leadership questions have evolved into eight core questions that examine how various dimensions of leadership impact performance. The questions ask, "please rate the following aspects of your organization in terms of how well it operates (1: not well - 5: very well)":

1. The vision, mission and strategy of the PSO is well understood and clearly communicated
2. Employees have confidence in PS leadership
3. It is easy to get things done within the PS organization
4. Goals and measurements are in alignment for the service organization
5. Employees have confidence in the future of the PS organization
6. The organization effectively communicates with employees
7. The organization embraces change, it is nimble and flexible
8. The organization focuses on innovation and is able to rapidly take advantage of changing market conditions

SPI Research has created a "***Leadership Index***" by ranking the aggregate leadership scores for all eight questions by survey participant. The minimum score for the leadership index would be eight, if the survey participant stated "1 - not well" for each of the eight questions. The maximum would be 40, if the participant stated "5 - very well", for each question.

As statisticians, a perfect day is when a key performance measurement clearly correlates with most measures of performance. Well, the dimensions of leadership are one of those perfect statistics. As the leadership dimensions improve, so do all major key performance metrics. One might expect "Confidence in Leadership" and "Confidence in the Future" to improve along with clarity of vision and strategy but the truly remarkable finding around leadership is that all the major operational metrics – revenue per person, utilization, project margin and on-time project completion improve as well. It is amazing how strategic clarity permeates all aspects of operational performance. If the strategy is clear and compelling, people-based organizations will find a way to accomplish it.

With strong leadership, employees understand what's required of them, and can go about conducting their daily business with the confidence their work supports corporate objectives. Strong leadership helps employees get on the same page, working toward a common goal. With this knowledge, employees are more productive, ultimately delivering higher levels of client satisfaction and profitability to the organization.

Table 42 depicts the percentage of survey respondents by overall leadership index rating compared to key operational measurements. As shown in the table, effective leadership has a powerful impact on all aspects of performance.

Table 42: Leadership Impact Based on Leadership Maturity Scores

Key Performance Indicator (KPI)	8 - 25	26 - 30	31 - 35	36 - 40
Percentage of respondents	20.0%	24.2%	36.4%	19.4%
Year-over-year change in PS revenue	4.9%	7.2%	11.7%	12.5%
% of employees billable or chargeable	71.7%	73.7%	75.8%	78.6%
Revenue from new clients	24.7%	23.0%	29.5%	30.5%
Bid-to-Win ratio (per 10 bids)	4.39	4.64	4.80	5.49
Percentage of referenceable clients	64.2%	67.8%	72.7%	77.7%
Consultant Ramp time (days)	65.2	56.3	54.4	49.1
Recommend company to friends/family (5 pt.)	3.37	4.13	4.53	4.77
Well-understood career path for all employees	2.31	2.97	3.26	3.88
Employee billable utilization	66.9%	71.8%	70.6%	72.5%
Projects delivered on-time	69.7%	74.5%	80.5%	86.1%
Use a standardized delivery methodology	71.3%	65.4%	72.5%	76.6%
Annual revenue per billable consultant (k)	$200	$195	$209	$219
Annual revenue per employee (k)	$146	$161	$162	$187
Profit (EBITDA %)	**10.9%**	**9.4%**	**16.3%**	**18.7%**

Source: Service Performance Insight, February 2017

More than any other factor, good, or poor leadership impacts all facets of the business delivering stronger growth, higher billable utilization, better on-time project delivery, more winning proposals and higher levels of customer satisfaction. The reverse is also true. Poor leaders can sabotage cross-functional alignment, leading to organizational alienation, functional silos and chaos. Leaders who are not able to transition to more strategic roles can create heroic, reactive organizations characterized by fire-fighting, in-fighting and burnout. Many top-performing organizations have reported adding SPI's leadership questions to their employee surveys to help them measure and quantify employee confidence in leadership.

Survey Results

Organizational Challenges

Each year SPI Research asks participants to rank the key challenges facing them. This year "improving sales and marketing" overtook "achieving revenue and margin targets" as the number one challenge. Interestingly, the importance of these challenges has increased year over year indicating competitive pressures, achieving revenue and margin targets and attracting and retaining top talent are becoming increasingly more difficult. Shifting business models and market saturation are straining sales and service delivery relationships as the pressure to find and close deals has become more intense. Likewise, a plethora of new competitors and expansion of the Big 5 into hot new markets is making it harder and harder to achieve revenue and margin growth targets. Going forward the ever-growing technical talent shortage will continue to be a top challenge as attracting the best and brightest talent is a daunting task. Developed nations have been meeting this talent shortage by attracting top workers from around the world but the new wave of protectionism and travel bans may have a chilling effect on employment mobility.

Table 43: Year-over-year Change in Top Challenges

Challenge	2014	2015	2016
Improve sales and marketing	4.10	4.06	4.31
Achieve revenue and margin targets	4.07	4.19	4.29
Talent management	4.11	4.18	4.20
Communication across PSO	3.90	4.12	4.20
Support rapid growth and expansion	4.01	4.12	4.16
Improve quality and consistency	3.85	4.13	4.08
Vision and strategy	3.90	4.03	4.07
Improve / expand portfolio and markets	3.83	3.92	3.97
Alignment between functions or groups	3.45	3.81	3.71

Source: Service Performance Insight, February 2017

After five years of torrid growth and expansion, many firms are now struggling to keep up with the tremendous growth they have experienced. In interviews, several firms reported they plan to slow growth and acquisitions because their infrastructure and culture cannot keep up. For the fastest growing firms, 2017 will be an investment year – they plan to update or replace systems; enhance training and invest in their culture to ensure they will be able to recruit and retain a high-quality workforce.

Organizational Challenges by Organization Type

When comparing the key challenges of embedded versus independent service providers (Table 44), the number one challenge for both this year is "improving sales and marketing". Year after year the difficult work of properly identifying, positioning and closing profitable deals just seems to get harder. Both embedded and independent PSOs often describe a revolving door of solution sellers and sales models, none of which seem to be able to nurture existing clients while expanding the installed base while also capturing new markets and new marquis clients. Of course, it all starts with an effective strategy – clearly identifying target markets which are large enough and have common enough challenges to support growth plans but are also in areas where the firm already possesses or can quickly grow differentiating competencies. Closely aligned with the age-old issue of sales and marketing is achieving revenue and margin targets which moved into 2nd position this year.

Table 44: Leadership Challenges

Organizational Challenge	Survey	ESO	PSO	Americas	EMEA	APac
Improve Sales and Marketing	4.31	4.3	4.31	4.3	4.29	4.45
Achieve Revenue and Margin Targets	4.29	4.29	4.3	4.32	4.18	4.34
Communication Across PSO	4.2	4.26	4.17	4.2	4.21	4.17
Talent Management	4.2	4.22	4.18	4.21	4.16	4.21
Support Rapid Growth and Expansion	4.16	4.24	4.12	4.13	4.24	4.24
Improve Quality and Consistency	4.08	4.2	4.01	4.09	4.08	3.93
Vision and Strategy	4.07	4.08	4.06	4.06	4.11	4.03
Improve / Expand Portfolio and Markets	3.97	3.99	3.96	3.95	4.03	4.07
Alignment Between Functions of Groups	3.71	3.85	3.64	3.74	3.61	3.76

Source: Service Performance Insight, February 2017

As always happens in the technology-centric world of professional services, yesterday's darlings tend to become today's goats. Even the hottest of air balloons cannot ascend forever. The other big factor at play here is that with the meteoric rise of hundreds of cloud solutions, many enterprise clients are starting to move towards platform consolidation. They simply cannot manage 50 or more vendor relationships and technologies so we are seeing a new wave of platform consolidation…. With enterprise clients choosing between Amazon Web Services, Salesforce Force, Microsoft Azure and Google. Interestingly, ESOs have prioritized communication as a top challenge. This speaks to the abundant charter conflict which still exists for PS organizations within product companies.

By geography, coming off a strong year, EMEA is struggling to support rapid growth and expansion. Interestingly, although still a Top 5 challenge "talent" has moved from the top position a year ago, into fourth place this year. As the market is experiencing slower growth, talent issues are easing somewhat.

Improvement Priorities

Table 45 compares improvement priorities for the past three years. The priority of improvement initiatives has changed. For the first time, "improving the solution portfolio" has moved to the top. This means organizations are reexamining their go-to-market strategies and looking to both expand and consolidate their solutions portfolio. They are also keenly focused on adapting to shifting business models, with everything moving to "as a service" consumption-based pricing. Another top improvement priority is improving hiring and ramping. The average time to recruit, hire and ramp a new employee has only slightly improved from 127 days five years ago, to 117 days in 2016.

In fact, the average time to identify and hire a skilled employee has grown to 62 days so the only improvement has been shown in reducing ramping time. To shorten the time it takes to recruit and on-board new employees, firms are investing in dedicated recruiters and Human Capital Management systems to automate and streamline the recruiting process. More and more firms are also investing in on-boarding and mentorship programs to accelerate the time it takes for new consultants to become productive.

Table 45: Steps Taken to Improve Profitability Comparison

Key Performance Indicator (KPI)	2014	2015	2016
Improve solution portfolio	3.59	3.78	4.14
Improve hiring and ramping	3.48	3.85	4.11
Reduce non-billable time	3.26	3.83	4.08
Improve methods and tools	3.60	3.85	4.04
Improve utilization	3.85	3.78	4.04
Increases rates	2.90	3.85	4.01
Improve marketing effectiveness	3.65	3.52	3.79
Improve sales effectiveness	3.94	3.78	3.76
Take advantage of revenue recognition to reduce discounting	NA	NA	2.99

Source: Service Performance Insight, February 2017

Well Understood Vision, Mission and Strategy

Clear leadership direction and effective bi-directional communication are critical success factors. Employees who lack an understanding of the service vision, mission and strategy have no ability to work toward realizing it whereas those who comprehend, espouse and support the vision will work tirelessly to achieve it. In this year's survey, clarity of vision, mission and strategy directly correlated with revenue growth, employee attrition and billable utilization. But the correlation with net profit is not apparent.

Table 46: Impact – Well understood vision, mission and strategy

Well understood vision, mission and strategy	Survey %	Rev. Growth	Emp. Attrition	Billable Util.	EBITDA
1 – Not very well	1.5%	10.0%	18.7%	60.0%	NA
2	6.7%	2.5%	17.0%	69.4%	19.8%
3	22.0%	8.6%	11.8%	68.6%	16.4%
4	49.4%	9.5%	13.6%	71.2%	14.9%
5 – Very well	20.4%	11.6%	11.7%	69.9%	16.9%
Total/Average	**100.0%**	**9.2%**	**13.1%**	**70.1%**	**16.0%**

Source: Service Performance Insight, February 2017

Confidence in Leadership

The tools for effective leadership, clarity of purpose and alignment exist within all service organizations. By investing in these critical aspects, service organizations can create their own economic stimulus plan. SPI Research continues to discover most key performance measurements improve as confidence in leadership increases. According to survey results, few other factors have the same impact on the overall health and well-being of the service organization. Poor leadership creates a negative spiral effect —

poor human capital results (high attrition, low morale, poor employee engagement) — which in turn lead to low levels of client satisfaction and poor financial results.

Because PSOs rely on the quality and commitment of the consulting staff, poor leadership produces an immediate and long-lasting negative effect. Fortunately, positive changes in leadership can also produce immediate improvements because PSOs exhibit amazing resiliency and can heal and regenerate themselves rapidly. Unlike product-based organizations, extremely rapid turnarounds are possible in people-based PS organizations.

Table 47: Confidence in PS leadership

Confidence in PS Leadership	Survey %	Rev. Growth	Emp. Attrition	Billable Util.	Bid-to-Win
1 – No Confidence	1.8%	2.9%	19.2%	61.7%	3.17
2	3.7%	1.8%	19.8%	73.9%	3.44
3	11.6%	7.0%	14.8%	68.3%	4.88
4	55.8%	9.3%	13.5%	70.3%	4.55
5 – High Confidence	27.1%	11.3%	10.3%	70.4%	5.08
Total/Average	**100.0%**	**9.2%**	**13.1%**	**70.1%**	**4.67**

Source: Service Performance Insight, February 2017

Ease of Getting Things Done

SPI Research asked participants whether it was easy to get things done within their organization, meaning minimal red tape, able to quickly and easily assign qualified resources with limited bureaucracy. Organizations that provide an infrastructure that allows people to be productive enhance both employee satisfaction and financial success.

Table 48 shows a majority of firms believe it is relatively easy to get things done. As ease of getting things done improves, so do other metrics including revenue growth, billable utilization and profit. Interestingly, the fastest growing firms reported the greatest ease of getting things done while contracting organizations reported difficulty in getting things done.

Table 48: Ease of getting things done

Ease of getting things done	Survey %	Rev. Growth	Emp. Attrition	Billable Util.	EBITDA
1 – Very hard	1.2%	-5.0%	22.1%	68.3%	13.8%
2	10.4%	5.1%	14.0%	69.6%	17.0%
3	20.2%	7.1%	14.6%	66.6%	11.4%
4	49.5%	10.8%	12.8%	71.4%	16.6%
5 – Very easy	18.7%	10.8%	11.5%	70.4%	18.6%
Total/Average	**100.0%**	**9.3%**	**13.1%**	**70.0%**	**16.0%**

Source: Service Performance Insight, February 2017

Goals and Measurements in Alignment

Another survey question asked, "Are goals and measurements in alignment for the service organization?" Alignment speaks to a clearly articulated strategy with goals and measurements reinforcing the organization's purpose and stimulating action.

Alignment or lack of alignment has a significant impact on bottom-line performance. Lack of alignment emanates from a lack of clarity and conflicting or too many priorities. It is characterized by low levels of employee engagement and functional silos or factions. The highest performing service organizations exhibit clarity of purpose and alignment around a succinct set of core values and initiatives. Effective measurements and compensation reinforce those values, linking strategy to execution. As shown in Table 49 goals and measurements in alignment had a profound impact on service execution. Revenue growth, billable utilization and net profit improved with better alignment.

Table 49: Goals and measurements in alignment

Goal and measurements in alignment	Survey %	Rev. Growth	Emp. Attrition	Billable Util.	EBITDA
1 – Not aligned	3.4%	8.3%	16.2%	63.5%	10.0%
2	8.9%	8.4%	12.5%	67.5%	12.9%
3	23.3%	7.7%	13.0%	70.6%	16.2%
4	45.7%	9.2%	13.8%	69.9%	15.4%
5 – Very aligned	18.7%	12.0%	11.5%	72.1%	19.7%
Total/Average	**100.0%**	**9.3%**	**13.2%**	**70.0%**	**16.0%**

Source: Service Performance Insight, February 2017

Employees Have Confidence in the PSO's Future

The level of employee confidence in the future of the PS organization has a profound impact on almost all key performance measurements. Firms with the highest levels of employee confidence experienced the highest levels of billable utilization and revenue and margin target attainment. In fact, almost every key performance measurement, from project margins to attrition to annual revenue target attainment had a positive correlation with employee confidence in the future of the PS organization.

Table 50: Impact – Employees Have Confidence in the PSO's Future

Confidence in the PSO's Future	Survey %	Rev. Growth	Emp. Attrition	Billable Util.	HC Growth
1 – Not confident	1.2%	-5.0%	20.3%	62.5%	-10.6%
2	5.5%	4.4%	17.5%	71.5%	-2.6%
3	21.4%	3.8%	15.6%	68.5%	2.1%
4	45.0%	10.3%	12.9%	70.0%	8.1%
5 – Very confident	26.9%	13.5%	10.5%	71.3%	11.4%
Total/Average	**100.0%**	**9.3%**	**13.2%**	**70.0%**	**6.9%**

Source: Service Performance Insight, February 2017

"The world loves a winner" seems to be an appropriate description for the positive results of the organizations with the highest levels of employee confidence. A key "chicken or egg question" always arises around "confidence in the future" as typically the highest performing and fastest growing organizations propel employees to have confidence in the future, while low confidence is indicative of organizations in turmoil or going through massive change as they reposition themselves to take better advantage of the future.

Effective Employee Communication

Respondents were asked to rate "our organization effectively communicates with employees". Independents reported better communication than ESOs. The level of effective communication declined directly in proportion to the size of the organization. In other words, the smallest organizations exhibited the best communication while the largest showed the worst. Talk may be cheap but without bidirectional communication, employees quickly become disenfranchised. Creating an effective communication plan should be part of any improvement plan.

Table 51: Impact – Effective communication with employees

Effective Communication	Survey %	Rev. Growth	Emp. Attrition	Billable Util.	EBITDA
1 – Poor communication	0.9%	5.8%	21.2%	65.0%	NA
2	8.0%	6.6%	19.1%	69.5%	14.1%
3	22.2%	7.1%	11.9%	68.4%	12.9%
4	49.1%	9.3%	13.3%	70.4%	15.7%
5 – Great communication	19.8%	12.7%	11.1%	71.6%	18.9%
Total/Average	**100.0%**	**9.2%**	**13.1%**	**70.1%**	**15.4%**

Source: Service Performance Insight, February 2017

Organization Embraces Change, is Nimble and Flexible

Change is a way of life for 21st century professional service organizations. One of the primary reasons why more and more companies out-task IT, accounting, law, strategy and marketing to specialized PS organizations is that the pace and amount of change and complexity is impossible to keep up with so they must reply on consultants and specialists. Each leadership dimension impacts all other leadership dimensions. Nimble organizations that can easily adapt to change

Table 52: Impact – Organization Embraces Change, is Nimble and Flexible

Organization Embraces Change	Survey %	Rev. Growth	Emp. Attrition	On-time Projects	HC Growth
1 – Does not embrace	1.2%	1.9%	20.3%	51.7%	0.6%
2	9.5%	8.6%	12.4%	69.1%	3.7%
3	20.2%	6.4%	14.3%	73.1%	4.5%
4	40.4%	9.7%	13.5%	78.0%	8.1%
5 – Very much embrace	28.7%	11.3%	11.8%	81.5%	8.2%
Total/Average	**100.0%**	**9.3%**	**13.2%**	**76.9%**	**6.9%**

Source: Service Performance Insight, February 2017

have higher levels of strategic clarity, confidence in leadership, lower levels of attrition and higher revenue growth.

Innovation Focused

Innovation is a hot topic these days as technology innovators like Apple have created new markets and destroyed leaders like Research in Motion who were not able to see and respond to a "consumer-based" future. Research into the science of innovation shows innovators are more likely to take risks and have a high tolerance for failure.

In professional services, innovation comes from exploring and embracing new business models, processes and technologies to improve productivity and quality. To the extent thought leadership can be considered a component of innovation, PSOs excel at innovation. The benchmark results depict the importance of striving for new and innovative solutions to problems. Innovative organizations provide employees with the confidence to know the organization will be around for years to come, and they will be continually challenged and personally grow as the organization expands. Innovation focus is not organization size dependent. One of this year's Best-of-the-Best PSOs said their belief is "great ideas come from anywhere". This organization has built a culture or empowerment, embracing innovation. Any employee with a great idea, at any level, can build a business case and receive funding and support to tackle internal problems or create new solutions.

Table 53: Impact – PS Innovation Focus

Innovation Focused	Survey %	Rev. Growth	Emp. Attrition	Billable Util.	On-Time Projects
1 – Not innovative	1.8%	2.9%	19.1%	65.0%	61.0%
2	11.4%	7.0%	13.9%	69.1%	74.3%
3	25.2%	5.9%	14.1%	68.6%	74.7%
4	39.4%	9.9%	13.6%	70.6%	76.8%
5 – Very innovative	22.2%	13.8%	10.4%	71.2%	82.8%
Total/Average	**100.0%**	**9.3%**	**13.1%**	**70.0%**	**77.0%**

Source: Service Performance Insight, February 2017

9. Client Relationships Pillar

The Client Relationships pillar focuses on the activities associated with business development and client management. Finding and retaining customers is a primary means of growing a business, and is always one of the top challenges for PS firms.

In this chapter, SPI Research provides the PS Sales and Marketing Maturity Model™, along with statistics showing the benefits of sales and marketing investments. This report examines service sales roles, compensation, client mix and a host of sales and marketing effectiveness metrics. Since referrals are a primary driver of repeat business SPI Research also explores the correlation between client satisfaction and business success.

Cultivating new and repeat clients is the lifeblood of the service industry. Professional services organizations are in business to provide knowledge, expertise and guidance. Their sales and marketing organizations must define target markets and clients by understanding their key challenges. The job of service sales and marketing is to generate awareness and identify and close opportunities. Services are intangible so the job of service sales and marketing has the added difficulty of creating concrete proof of the firm's knowledge, experience and differentiation.

Table 54 highlights the five levels of maturity in the Client Relationships pillar. As sales and service delivery processes mature, organizations move from selling anything and everything to anyone, to a more careful and selective approach to client selection; solution creation; deal capture; contract and pricing management, reference building and partnering.

Table 54: PS Sales and Marketing Maturity Model™

	Level 1	Level 2	Level 3	Level 4	Level 5
Client Relationships	Opportunistic. No defined solution sets or go to market plan. Focus is on new customers and reference building. Individual heroics, no consistent sales, marketing or partnering plan or methodology. Ad hoc, one-off projects.	Start to use marketing to drive leads. Multiple sales models. Start investing in sales training, CRM & sales methodology. Manual integration with PSA. Start measuring sales effectiveness & customer satisfaction. Start developing partners and partner programs. Some level of proposal reviews and pricing control.	Marketing, inside sales, solution sales with defined solution sets. CRM integrated with PSA. Deal, pricing and contract reviews. Partner plan and scorecard. Tight pricing and contract mgmt. controls. High levels of customer satisfaction.	CRM, PSA, ERP integration provides 360-degree view of client relationships. Business process, vertical and horizontal solutions. Vertical centers of excellence. Top client and partner programs. Global contract and pricing management. Key partner relationships. Strong customer reference programs.	Executive relationships and client advisory board. Thought leadership. Brand building and awareness. High customer satisfaction. Integrated sales, marketing and partnering programs. High quality references.

Source: Service Performance Insight, February 2017

The effectiveness of the organization's sales and marketing efforts determines the quality and size of the pipeline; Bid-to-Win ratios; discounts; client satisfaction and the length of the sales cycle. Effective sales and marketing organizations continually uncover new opportunities while ensuring existing customers continue to buy and refer. Today's successful PSO, whether embedded or independent, is increasingly taking charge of its own destiny by investing in sales, marketing and service packaging.

Table 55 clearly shows why "Improving Sales and Marketing" has moved to the number one improvement priority this year as sales, marketing and solution development effectiveness scores all declined. Dissatisfaction with service marketing representing the steepest decline. These are subjective questions in which survey respondents are asked to "rate the effectiveness" of sales, marketing and solution development. Although the subjective sales and marketing questions revealed growing dissatisfaction, the objective sales metrics were not as conclusive. They show mixed results with fewer wins and longer sales cycles but larger sales pipelines and improvements in customer referenceability.

Table 55: Client Relationships Pillar 5-year trend

Key Performance Indicator (KPI)	2012	2013	2014	2015	2016
Bid-to-Win ratio (per 10 bids)	5.19	4.96	4.92	4.95	4.85
Deal pipeline relative to qtr. bookings forecast	193%	190%	199%	172%	189%
Sales cycle (days: qualified lead to contract signing)	96	95	91	88	92
Average service discount given	N/A	N/A	7.3%	7.7%	7.7%
Solution development effectiveness (1 to 5 scale)	3.02	2.99	3.00	3.59	3.47
Service sales effectiveness (1 to 5 scale)	3.20	3.24	3.14	3.57	3.42
Service marketing effectiveness (1 to 5 scale)	2.61	2.70	2.72	3.29	3.07
Percentage of referenceable clients	75.4%	74.5%	73.7%	70.4%	71.5%
Time & materials % of work sold	54.7%	51.7%	58.8%	46.7%	55.4%
Fixed time / fixed fee % of work sold	42.8%	44.0%	36.3%	39.7%	38.9%
Shared risk / performance-based % of work sold	1.4%	2.8%	2.1%	6.4%	2.8%
Other	1.1%	1.5%	2.9%	7.2%	2.9%

Source: Service Performance Insight, February 2017

PS Sales Maturity

As part of the PS Sales and Marketing Maturity Model™, Service Performance Insight focuses on key success criteria and processes associated with PS sales, marketing and partnering. SPI Research charts its definitions of sales maturity levels and shows how they progress as the organization enhances the knowledge and practice of solution selling resulting in superior client value (Table 56).

The table depicts PS sales maturity progression. As organizations enhance their solution selling capabilities, methods, systems and tools, overall sales effectiveness improves. These efforts pay for themselves in higher percentages of sales quota achievement; better sales forecasting accuracy; improved pricing and estimating accuracy resulting in fewer project overruns; faster sales cycles due to better deal qualification; larger deals; more PS revenue by account; larger pipelines and significantly better reference clients.

Table 56: PS Sales Maturity Model™

	Level 1	Level 2	Level 3	Level 4	Level 5
	Ad Hoc, Opportunistic, Heroic	**Piloted, Experimental, Pockets of Excellence**	**Deployed, Basics in Place for All Key Elements**	**Institutionalized, in the Company DNA / Fabric**	**Visionary, Agile, Innovative, Continuous Renewal and Improvement**
Client Value	Handcrafted projects, unique, highly dependent on individual team member skills.	Limited replication or codification of service solutions. Point product solutions primarily focused on rapid implementation. Starting to focus on adoption.	Clear, value-based sales and marketing messages developed for product / vertical /geographic audiences. Some level of client value and ROI measurement.	Client-centric, high value services developed and packaged. Demonstrated, measurable business value.	Partnerships exist with most strategic, forward-thinking clients to develop and enhance leading edge services. Solutions deliver clear and significant value.
Sales Process	Opportunistic and instinctive with ad hoc service offerings. No consistent sales methodology. Variation in pricing methods. Inconsistent proposals, quotes, contracts. Limited to no investment in sales training, methods or tools.	Dedicated solution selling teams. Repeatable process for point solutions. Implementing sales methodology, reinforced in CRM. Reusable proposal boilerplate. Informal proposal roles and self-governing proposal teams. Standard price list and discount authority. Developing standard estimating tools.	Consistent solution selling methods & tools reinforced and supported in CRM. Solution-oriented best practices. Consistent estimating and risk evaluations. Bid qualification criteria. Standard contracts and statements of work. Clear roles, responsibilities and timelines. Sales organization trained to effectively sell solutions.	Solution and value selling is a way of life with appropriate measurements and controls with fully integrated supporting systems and tools. Sophisticated selling strategies including quantified client value with improved KPIs and positive ROI.	Established thought leadership and trusted advisor at highest levels. Continual investment in improving and expanding service portfolio as a means of market expansion. Effective proposal center delivers timely, high-quality estimates, proposals, contract and risk reviews.
Partners	Ad hoc and opportunistic without clearly defined roles.	Partner plan in place, but conflicts still exist. Defined partner programs to extend market reach.	Solution sets designed with partners in mind (defined roles and deliverables for prime, hybrid, sub). Top partner program.	Co-development with partners. Partners are integral part of service packaging and rollout.	Co-opetition. Partners contribute to company's overall service innovation by providing SME feedback and insights.
Client Sat Programs	Ad hoc reference requests. No formal program. Heroic.	Client reference programs established to extend market reach.	Proof, testimonials and references to support solution client value. Consistent, ongoing satisfaction measures.	Client advisory board influences roadmap, participates in beta programs.	Strategic clients are company and service evangelists.

Source: Service Performance Insight, February 2017

PS Sales Effectiveness Metrics

Service sales effectiveness is a subjective question but typically refers to the percentage of sales people who achieve quota and the probability that the sales organization will achieve its targets. SPI Research asked respondents to rank the effectiveness of the service sales organization on a scale from 1 to 5 with 5 representing perfection (Table 57). Sales effectiveness has a profound impact on all aspects of PS but unfortunately almost 15% of respondents give sales effectiveness a failing grade of 1 or 2; 31% give sales effectiveness an “OK” score of 3; only 55% give sales effectiveness high marks. This year’s average rating of sales effectiveness declined from 3.57 out of 5 (71%) to 3.42 (68%). With slowing PS market growth, the age-old schism between sales and service delivery is rearing its ugly head again. ESOs gave lower marks for sales effectiveness (3.37 or 66%) than independents (3.45 or 68%). The only group who gave a passing grade to sales effectiveness was Asia-Pacific with a score of 3.64 (72%).

Table 57: Impact – Service Sales Effectiveness Impact on Performance

Sales Effectiveness	Survey	Annual Revenue Growth	Bid-Win Ratio	Size of Sales Pipeline	Revenue ($) per consultant	Revenue (k) per employee	% of annual target revenue	EBITDA
1 - Low	3.8%	-2.7%	3.68	195%	$171	$171	83.1%	NA
2	10.0%	5.8%	4.02	157%	194	$167	90.0%	14.4%
3	31.1%	9.4%	4.52	178%	186	$144	90.7%	15.3%
4	46.4%	9.9%	4.78	193%	210	$161	92.2%	15.4%
5 - High	8.7%	14.0%	5.92	206%	220	$193	95.7%	16.1%
Total/Avg.	**100.0%**	**9.2%**	**4.68**	**186%**	**$200**	**$159**	**91.5%**	**15.6%**

Source: Service Performance Insight, February 2017

PS Marketing Maturity

The global economy has evolved into a services economy with services like health care, technology and consulting representing the hottest areas of growth. Marketing services is an important skill, and a tough one, for businesses to master. Without a tangible product to show and tell customers about, service marketers must be adept at pulling together all the pieces of the marketing mix to demonstrate value for their target clients. Services are inherently intangible, are consumed simultaneously at the time of their production, and cannot be stored, saved or resold once they have been used. Service offerings are unique and cannot be exactly repeated even by the same service provider for the same customer. Service marketing has become a big business with a focus on establishing the services brand, generating awareness and leads while providing powerful tools and collateral to support service sales and delivery.

Relationships Are Key

In service marketing, because there is no tangible product, relationships are key – both with the services sales force and clients. Service marketers must listen to and understand the needs of customers and prospects to identify the compelling reasons they buy and what attributes they most care about to build differentiation for the firm. The role of service marketing is to identify target markets and clients and to position the firm and its solutions in a differentiated way while supporting the sales force with lead generation and reference building activities. In many organizations, service marketing is also responsible for developing customer references, testimonials, case studies and client advisory boards.

Services Marketing versus Service Lifecycle Management

A key finding from this benchmark is most PS organizations are confusing service marketing with service lifecycle management. Service marketing is clearly an aspect of service lifecycle management but most often does not encompass the truly transformational elements of building a services portfolio comprised of repeatable sales and service delivery methods and tools, which we include in the larger scope of service lifecycle management.

Table 58: PS Marketing Maturity™ Levels

	Level 1	Level 2	Level 3	Level 4	Level 5
	Ad Hoc, Opportunistic, Heroic	**Piloted, Experimental, Pockets of Excellence**	**Deployed, Basics in Place for All Key Elements**	**Institutionalized, in the Company DNA / Fabric**	**Visionary, Agile, Innovative, Continuous Renewal and Improvement**
Client Value	Handcrafted projects, unique, highly dependent on individual team member skills.	Limited replication or codification of service solutions. Point product solutions primarily focused on rapid implementation.	Clear, value-based sales and marketing messages for product, vertical, geographic audiences. Some level of client value and ROI measurement.	Client-centric, high value services developed and packaged. Demonstrated, measurable business value.	Partnerships exist with most strategic, forward-thinking clients to develop and enhance leading edge services.
Marketing	Tactical. Limited to no investment in service marketing.	Campaign-driven, focused initiatives. Service marketing includes collateral, web and in-person seminars, and other promotions with voice of the customer for specific service offers.	Programmatic and comprehensive. Service marketing - target-market and segment focus to establish differentiation.	Strategic and global, service portfolio reflects and supports brand and industries. Service portfolio management and strategic marketing efforts aligned.	Brand, thought leadership, and innovation are established and supported through all marketing activities. High brand value.
Team Definition and Composition	None. Lack of service marketing organizational definition.	Organizational structure includes borrowed or rotational roles to support service marketing efforts.	Permanent service marketing roles defined, staffed and funded.	Effective service marketing leadership and management.	Service marketing organization is strategic and continually impacts company's success.
Marketing Budget Plan / Business Plan	No budgeting for service marketing. Business planning does not incorporate service marketing. Ad hoc, one off, impact not measurable.	Budgeting includes service marketing costs and projected results. Business planning capabilities are based on individuals' experiences.	Budgeting process fully incorporates service marketing investments, revenue, profit planning. Mature business planning capabilities.	Service marketing and portfolio planning is a strategic component of annual budgeting process.	Decisions to fund service marketing are based on complex, reliable business modeling levers as part of budget plan. Service marketing business plan justification is mature - comprehensive, fact-based, insightful.

Source: Service Performance Insight, February 2017

SPI Research recommends organizations start with service marketing – creating lead generation campaigns, sales tools, service descriptions, service packages and value-based presentations. Each of these activities will add value to the organization and will start to build brand-awareness and generate leads. After the organization gains success and traction with service marketing it will be in a better position to tackle true service lifecycle management, which not only involves sales and marketing but also extends to product management and service execution with repeatable tools, methods and systems.

Service Marketing Effectiveness

Having a service marketing focus is not enough. Marketing must develop effective thought leadership, lead generation campaigns, sales tools and sales enablement to increase the firm's brand awareness, showcase thought leadership and bring in qualified leads. The most successful PS marketing efforts require a strategic focus to ensure they augment and enhance the firm's strategy. Marketing should be charged with bringing the firm's vision and strategy to life through effective positioning. Without a seat at the executive table, marketing will be relegated to tactical lead generation and sales support activities. Effective marketing requires dedicated, skilled personnel along with sustained funding.

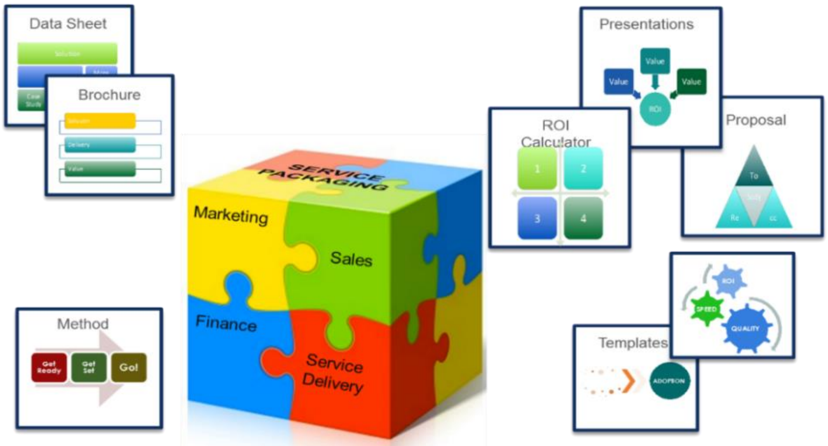
SPI Research asked how effective service marketing was on a scale of 1 to 5, with 5 representing excellent (Table 59). Marketing effectiveness has consistently been given an even worse score than sales effectiveness. This year marketing effectiveness declined from an OK rating of 3.29 (65%) in 2015 to 3.07 (60%) this year. Over 20% of organizations give marketing effectiveness a failing grade of 1 or 2. For the 37.6% of firms who gave their marketing efforts a strong score of 4 or 5, marketing has a positive impact on revenue growth and client referenceability. Marketing is certainly worth the expense if it is well-staffed, fully funded and positioned strategically.

Table 59: Impact – Marketing Effectiveness Impact on Performance

Marketing Effectiveness	Survey	Revenue Growth	Length of Sales Cycle (days)	New Client Revenue	Reference Clients	Discounts
1 - Low	8.0%	2.8%	122	39.3%	63.0%	10.9%
2	13.2%	7.2%	102	33.8%	60.1%	9.2%
3	41.1%	10.1%	92	32.9%	70.3%	9.3%
4	31.0%	9.2%	87	26.8%	72.8%	5.8%
5 - High	6.6%	15.3%	100	25.4%	78.7%	7.8%
Total/Average	**100.0%**	**9.2%**	**95**	**31.1%**	**69.7%**	**8.2%**

Source: Service Performance Insight, February 2017

Service Packaging



Most professional service organizations have a service delivery methodology or blueprint. Many already have some type of service packaging initiative. Typically, when PSOs define service products they limit the scope and therefore the impact of a comprehensive service portfolio.

Service packaging or productizing is: ***"The process of delineating, building, deploying and improving a clearly defined, tested, packaged service product to achieve operational improvements in support of an organization's strategic objectives"***

Simply defined, "productization" means creating a tangible product based on the services provided with the following core attributes:

- Δ Defined service offering with supporting marketing materials detailing client value and benefits;
- Δ Comprehensive sales playbook with supporting sales collateral and materials;
- Δ Clearly defined and bounded service delivery scope, assumptions, processes, tasks, roles, staffing requirements, duration, pricing structure and outcomes;
- Δ Standardized delivery methods, templates and tools;
- Δ Established quality controls and project governance; and
- Δ Enforced feedback and continuous improvement.

Productized services can be stand-alone, "fast start" offerings, or they can be components of an overall service portfolio. An organization can offer productized services in one or hundreds of locations. Regardless of its reach, the service must possess the core attributes that make the training, sales and delivery processes clear, consistent and repeatable.

Moreover, a productized service demonstrates the PSO has a consistent knowledge base and unique intellectual property. This approach shows the PSO has the skills to deliver the service within a pre-defined time and cost. Without productizing, professional services are less tangible and the benefits harder to define.

Service Performance Insight believes that systematic development of service packages is becoming increasingly important for companies seeking market differentiation and improved competitiveness. Service packaging is more successful when an organization uses a framework to choreograph roles and responsibilities and define clear outcomes by service development lifecycle phase. This approach leverages client knowledge from existing project plans. The speed, quality and effectiveness of service packaging improve with experience.

The five phases of SPI Research's SLM3™ service packaging methodology are shown below. Each step outlines key decision points and deliverables that break the service packaging effort into its measurable and actionable components:

1. ***Innovate*** – Identify service packaging candidates; conduct research; analyze the market; fund the effort.
2. ***Define*** – Plan the overall effort; define requirements and content; design service packaging methods, tools, and processes.
3. ***Develop*** – Build service products based on best practices, consistent methodologies, and tools; test assumptions.
4. ***Launch*** – Conduct beta test; assemble sales, marketing, and delivery documents; train sales and service professionals; execute sales and marketing campaigns; deliver with quality.
5. ***Optimize*** – Develop measurements and rewards; garner sales, PS organization, and client feedback; identify areas for improvement. Propose significant changes and add-ons back through the "Innovate" stage.

Table 60 presents the benefits organizations will derive by following a robust methodology such as SLM3™.

Table 60: Service Packaging Benefits

Phase	Benefits
Innovate	∆ Easier to sell and position complete service portfolio ∆ Clients understand business value – shortened sales cycle ∆ Faster, more iterative projects produce superior client business value ∆ Able to clobber the competition
Define	∆ Well documented and understood service portfolio ∆ Faster time to value, more projects delivered on-time, on-budget ∆ Clear policies, roles, blueprints, templates and tools facilitate new-hire ramping ∆ Reuse, consistency and quality are the norm
Develop	∆ Consistent global service portfolio ∆ Repeatable blueprints, methods, tools and IP ∆ Lower project delivery costs, higher utilization, better margins
Launch	∆ Clear Sales and Marketing plan improves Sales and Marketing effectiveness ∆ Better Bid-to-Win Ratio ∆ Larger pipelines ∆ Satisfied, reference clients
Optimize	∆ More extension and upgrade opportunities for add-on revenue ∆ Higher client retention and repurchase ∆ Improved visibility to future client needs

Source: Service Performance Insight, February 2017

Solution Development Effectiveness

Solution development effectiveness requires consistent PS and Sales executive funding and support. Ad hoc teams of benched consultants cannot be effective in developing a compelling and meaningful solution development strategy and program. Based on the Service Lifecycle Management Maturity Model™ benchmark, very few organizations are effective at service productization. Creating an effective and efficient solution development process is, in itself, a difficult undertaking. Most firms are struggling to do this because solution development crosses over traditional functional boundaries and requires cross-organizational collaboration and change. Getting all the constituent groups – professional services, sales, marketing, product management and channel partners – on the same page to create compelling solutions for the targeted markets is a daunting task.

Solution development requires significant leadership, organizational commitment, money and change management. Service Performance Insight believes that the following are critical success factors for instantiating and sustaining a successful solution development program:

- Articulated and understood services strategy;
- Service productization program vision;
- Active executive sponsorship;
- Market-driven focus;
- Global company adoption of program;
- Resource commitment;
- Cross-functional participation; and
- Common sales and delivery method, tools, and templates.

Service Performance Insight's recommended SLM3™ organizational structure, foundation, and methodology are architected to enable the committed organization to be successful.

Table 61: Impact – Solution Development Effectiveness Impact on Performance

Sales Effectiveness	Survey	Annual Revenue Growth	Bid-Win Ratio	Size of Sales Pipeline	Revenue per consultant	Revenue per employee	Backlog	EBITDA
1 - Low	2.8%	1.3%	3.50	231%	$169	$213	41.7%	NA
2	9.0%	8.0%	3.96	177%	201	$157	49.2%	6.0%
3	35.1%	8.6%	4.46	177%	205	$153	45.9%	16.8%
4	43.1%	9.4%	5.11	198%	200	$164	44.0%	14.8%
5 - High	10.1%	13.8%	4.61	161%	191	$154	36.1%	20.4%
Total/Avg.	**100.0%**	**9.2%**	**4.68**	**186%**	**$200**	**$160**	**44.3%**	**15.4%**

Source: Service Performance Insight, February 2017

SPI Research asked how effective solution development was on a scale of 1 to 5, with 5 representing excellent. Solution Development effectiveness has consistently been given a lower score than sales effectiveness but higher marks than marketing effectiveness. This year solution development effectiveness (3.47 or 68%) declined from 3.59 (71%) last year. For the 53.2% of firms who gave their solution development efforts a passing score of 4 or 5, solution development had a positive impact on revenue growth and profit.

Survey Results

The following section reviews and analyzes 2017 PS Maturity™ benchmark results from 416 participating Professional services organizations. In this section SPI Research analyzes 35 Client Relationship key performance measurements that are critical for measuring sales, marketing and solution development effectiveness.

The percentage of overall revenue from new clients is an important indicator of market expansion. A higher percentage of new client revenue shows the organization is expanding beyond its installed base. Both the size of the deal pipeline and the percentage of revenue from new clients have increased year over year. Across the benchmark, new client revenue increased from 28.3% last year to 29.7% this year. Revenue from new clients declined from 29.5% to 27.1% in the Americas; increased from 22.9% to 28.1% in EMEA and jumped in APAC from 25.5% to 37.5%.

The Bid-to-Win ratio shows the number of winning proposals for every 10 proposals submitted. It is a strong indicator of the level of competition and portends market saturation when the win ratio declines below 5, indicating firms are winning less than 50% of their opportunities. The win ratio declined year over year from 4.95 to 4.85. The ratio declined most significantly in the Americas and Asia as competition intensified in these regions. EMEA reported a higher winning ratio this year (4.64 vs 4.49).

Table 62: Client Relationships KPIs by Organization Type and Geographic Region

Key Performance Indicator	2015	2016	ESO	PSO	Amer.	EMEA	APac
Revenue from new clients	28.3%	26.8%	33.8%	23.0%	27.1%	28.1%	37.5%
Bid-to-Win ratio (per 10 bids)	4.95	4.85	4.76	4.90	4.91	4.64	4.93
Deal pipeline relative to qtr. bookings forecast	172%	189%	202%	181%	191%	186%	179%
Sales cycle (days: qualified lead to contract signing)	88	92	107	84	93	93	81
Avg. service discount given clients	7.7%	7.7%	10.2%	6.4%	7.8%	8.2%	5.8%
Percentage of referenceable clients	70.4%	71.5%	64.7%	75.4%	72.3%	67.2%	75.7%
Solution development effectiveness	3.59	3.47	3.29	3.57	3.49	3.36	3.54
Service sales effectiveness	3.57	3.42	3.37	3.45	3.42	3.36	3.64
Service marketing effectiveness	3.29	3.07	2.98	3.12	3.05	3.04	3.32

Source: Service Performance Insight, February 2017

The size of the deal pipeline is an important predictor of future revenue. ***The size of the deal pipeline in comparison to the quarterly sales forecast increased from 172% last year to 189% this year. This significant increase is a powerful predictor of future growth in PS revenues.*** Table 62 shows the size of the deal pipeline compared to the quarterly bookings forecast is stronger for ESOs however both ESO and PSO pipelines have improved from last year. ESO pipelines increased from 178% to 202%; independent pipelines increased from 160% to 181%. By geography the deal pipeline is strongest for the Americas and weakest for Asia. These figures are up from last year's results. This metric portends growth across the PS industry.

The level of discounting is an indicator of increased competition as well as slowing demand. Average discounts remained the same this year at 7.7%. ESOs reported higher levels of discounting, longer sales cycles and fewer client references than independents. The highest average discounts were reported by embedded SaaS PSOs at 14.2%. Interestingly, although most sales metrics improved in EMEA this year, the reported level of discounting significantly increased from 6.6% in 2015 to 8.2% in 2016.

By organization size, the deal pipeline is strongest for the largest organizations and weakest for the smallest. The smallest firms tend to live deal to deal with limited future visibility. Interestingly, client referenceability tends to decline with organization size as larger PSOs cannot afford to provide a personalized touch and approach to each client. For small firms, making every client a success is a business imperative.

Table 63: Client Relationships KPIs by Organization Size

Key Performance Indicator (KPI)	Under 10	10 - 30	31 – 100	101 - 300	301 - 700	Over 700
Revenue from new clients	34.2%	30.9%	27.4%	24.9%	21.2%	12.5%
Bid-to-Win ratio (per 10 bids)	4.68	4.87	4.95	4.71	5.15	4.77
Deal pipeline relative to qtr. bookings forecast	154%	170%	193%	211%	207%	196%
Sales cycle (days: qualified lead to contract signing)	85	87	94	90	95	108
Average service discount given clients	6.8%	7.7%	6.3%	9.6%	8.6%	9.1%
Percentage of referenceable clients	72.4%	76.0%	71.3%	68.5%	75.9%	64.1%
Solution development effectiveness	3.71	3.33	3.57	3.37	3.59	3.34
Service sales effectiveness	3.54	3.43	3.47	3.30	3.09	3.55
Service marketing effectiveness	2.97	3.00	3.10	3.03	2.91	3.37

Source: Service Performance Insight, February 2017

By vertical, embedded hardware and networking ESOs reported the strongest deal pipeline while staffing reported the weakest. Architects reported the highest levels of client referenceability, managed service providers reported the poorest. Service discounting is rampant in embedded ESOs, particularly if they work on a time and materials basis with known rate cards. SaaS PSOs reported the highest level of discounting and one of the lowest levels of client referenceability. These metrics need to be carefully watched as increasingly SaaS PSOs are also charged with client adoption metrics.

Tables 64 and 65 show key client relationships metrics by vertical market. Best performing verticals are highlighted in green, worst are highlighted in red.

Table 64: Client Relationships KPIs by Vertical Service Market

Key Performance Indicator (KPI)	IT Consult.	Software	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.	Hard. & Network
Revenue from new clients	25.8%	33.2%	21.3%	14.0%	49.0%	15.0%	20.8%
Bid-to-Win ratio (per 10 bids)	5.07	4.85	4.76	4.44	4.97	3.50	5.83
Deal pipeline relative to qtr. bookings forecast	196%	198%	173%	152%	203%	207%	250%
Sales cycle (days: qualified lead to contract signing)	89	111	70	89	97	109	90
Average service discount given clients	7.0%	9.1%	5.2%	2.8%	14.2%	9.6%	9.2%
Percentage of referenceable clients	73.3%	65.2%	78.8%	84.4%	64.2%	54.3%	62.5%
Solution development effectiveness	3.56	3.31	3.58	3.42	3.38	3.14	2.67
Service sales effectiveness	3.39	3.19	3.54	3.35	3.57	3.43	3.33
Service marketing effectiveness	3.05	2.89	3.24	3.12	3.00	3.43	2.00

Source: Service Performance Insight, February 2017

Table 65: Client Relationships KPIs by Vertical Service Market

Key Performance Indicator (KPI)	R&D	VAR	Acct.	Advert./ Marcom	Staffing	Other PS
Revenue from new clients	21.4%	25.7%	15.6%	16.4%	33.0%	27.3%
Bid-to-Win ratio (per 10 bids)	5.10	3.89	5.50	4.07	5.40	4.79
Deal pipeline relative to qtr. bookings forecast	170%	218%	183%	143%	113%	178%
Sales cycle (days: qualified lead to contract signing)	81	111	70	76	78	96
Average service discount given clients	7.5%	6.1%	7.5%	4.3%	10.0%	8.1%
Percentage of referenceable clients	85.0%	62.5%	75.0%	67.9%	71.3%	71.8%
Solution development effectiveness	3.75	3.29	3.50	3.14	3.60	3.64
Service sales effectiveness	4.00	3.64	3.50	3.43	3.60	3.48
Service marketing effectiveness	3.75	3.21	3.67	2.71	3.00	3.18

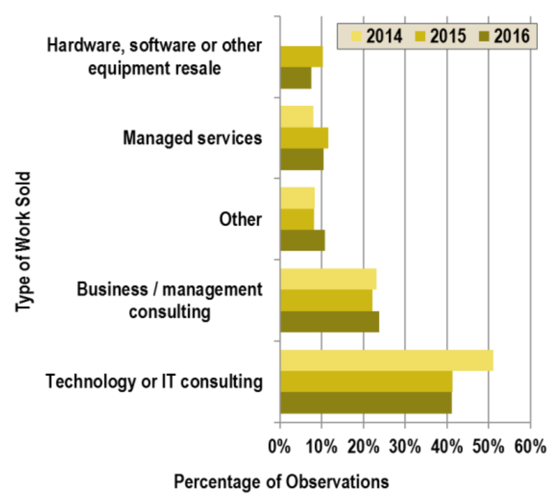
Source: Service Performance Insight, February 2017

Type of Work Sold

IT consultancies dominated this year's benchmark with 32% of the participants, so it is no wonder that 41% of the work sold was IT or technology consulting. Business process consulting was rated as the second most prevalent type of work sold at 23.8% (Figure 48). Both embedded and independents are delivering more business and management consulting – encroaching on the pure play management consultancies. Management consultancies reported 75.5% of their work is business and management consulting but now over 10% of their work is IT or technology consulting related.

Today many IT consultancies have equal numbers of business analysts and technical consultants – they focus on business process improvement and streamlining cumbersome business processes. Increasingly technology-focused PS providers are adding industry and domain experts to ensure horizontal technologies can be adopted and modified to reflect the unique needs of vertical industry clients.

Figure 48: Type of Work Sold



Source: Service Performance Insight, February 2017

Underlying technologies no longer require customization and integration; they have become easier to install and integrate with standard data loaders and connectors. Ensuring user adoption has become the primary concern of embedded ESOs. This means today's consultants need to understand business processes and what business users want and need to drive user adoption. Technology consulting now includes workflow mapping, business process modelling, rollout plans and administrator and end-user training with a focus on user adoption.

Over time SPI Research has seen a slight increase in business consulting and a slight decrease in technology consulting but certainly not the dramatic changes we would have predicted. Managed service revenue has increased slightly over the past five years from 7.3% in 2012 to 10.4% in 2016 but this increase is also not as dramatic as we would have expected.

Interestingly, almost all types of consulting organizations (except management consultancies and accounting) reported they derive up to 10% of their revenues from managed services; this means they are providing hosting services for their clients, taking over managing aspects of hardware, software and personnel for specific departments or applications. Most SaaS embedded ESOs have started adding managed service offers as they out task elements of running their applications for their clients. For many independents, the promise of managed services as a source of annuity revenue has not been fully realized because the technology manufacturers themselves have grabbed these opportunities by offering better economies of scale and enhanced security.

In this benchmark, staff augmentation has remained fairly constant at 6.3% although economic reports show a strong overall increase in staffing. Staffing providers, squeezed by vendor service agreements, are starting to move upstream to offer business and IT consulting. Pure play staffing and managed services are drifting toward commoditization – with too many competitors chasing too few opportunities. The margins in this low end of the market have become razor thin as large buyers demand vendor service agreements with low rates for common skills. Mergers and acquisitions in both staff augmentation and managed services are common as suppliers seek to improve their own economies of scale.

Table 66 depicts the types of work sold by embedded and independent service providers and by major geographic regions. This year ESOs delivered 18.2% of their work as management consulting, showing the shift towards business process consulting, away from technical consulting. They also have been growing their managed service revenues.

Table 66: Type of Work Sold by Organization Type and Geographic Region

Type of Work Sold	2015	2016	ESO	PSO	Amer.	EMEA	APac
Business/Management Consulting	22.2%	23.8%	18.2%	26.9%	24.1%	24.7%	19.0%
Technology or IT Consulting	41.3%	41.1%	45.4%	38.8%	39.7%	44.3%	47.4%
Managed Services	11.6%	10.4%	12.7%	9.3%	9.7%	13.1%	11.1%
Staff Augmentation	6.5%	6.3%	5.1%	6.9%	6.8%	5.4%	3.8%
Hardware, software, equipment	10.3%	7.5%	13.8%	4.2%	7.1%	7.3%	12.9%
Other	8.1%	10.7%	4.9%	13.8%	12.7%	5.3%	5.8%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Service Performance Insight, February 2017

New Client Penetration

Table 67 shows the impact of adding new clients. 54% of the benchmark participants produced less than 30% of their revenue from new clients which may inhibit future growth and profitability. SPI Research believes at least 30% of annual revenue should come from new clients for PS organizations to remain vibrant and viable. Throughout this study SPI Research has demonstrated the strong correlation between growth and profitability. The bottom-line is PS organizations must constantly expand their markets, client and solution repertoire to stay in touch with market changes and ahead of the competition. New clients allow PSOs to reap the benefits of previous client experiences and knowledge without the baggage of long-term relationships in which both provider and client may have become complacent. New clients provide the opportunity to expand knowledge, skills and services.

Table 67: Impact – Percentage of Business from New Clients

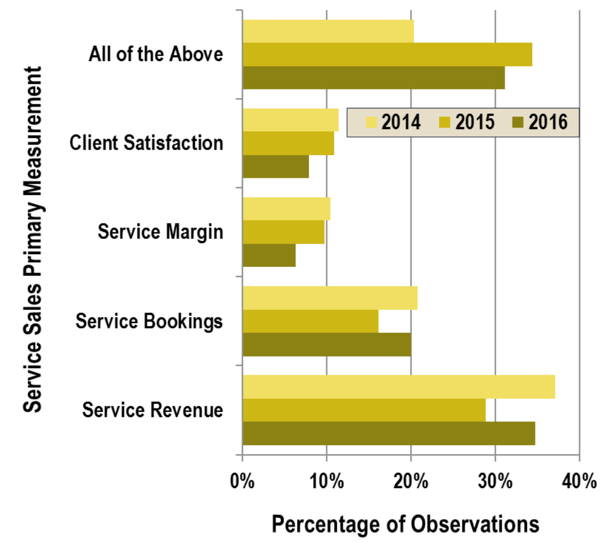
% of revenue from new clients	Survey	Annual Revenue Growth	Employee Growth	Size of Pipeline	Billable Utilization	Project Margin	EBITDA
Under 10%	15.5%	4.3%	2.5%	163%	70.4%	28.2%	14.5%
10% - 20%	14.4%	7.2%	6.6%	188%	70.4%	34.9%	12.9%
20% - 30%	24.1%	7.9%	5.3%	186%	71.8%	37.6%	16.6%
30% - 40%	16.6%	7.3%	3.7%	186%	71.3%	35.8%	12.1%
40% - 50%	7.8%	14.1%	9.1%	174%	68.1%	40.3%	14.7%
Over 50%	21.7%	14.1%	9.8%	216%	69.4%	35.9%	15.0%
Total/Average	**100.0%**	**9.0%**	**6.1%**	**188%**	**70.5%**	**35.3%**	**14.5%**

Source: Service Performance Insight, February 2017

Primary Service Sales Measurement

SPI Research asked about the primary measurement for service sales people. The leading answer was "service revenue" for 34.7% of survey respondents. The second-most prevalent sales measurement is "all of the above" with 31.1% of service reps measured on service revenue, service bookings, margin and client satisfaction (Figure 49). "Service bookings" is the primary measurement for 19.9%. 7.9% of the organizations measure their service sales people on client satisfaction; 6.3% on margin.

Figure 49: Primary Service Sales Measurement



Source: Service Performance Insight, February 2017

SPI Research frequently receives questions regarding how the service sales force should be measured. Table 68 provides a fascinating view of the cause and effect of service sales measurements. Best performing sales metrics are highlighted in green, worst in red. With so many variables in sales compensation, there appears to be no right or wrong measurement as all forms of sales measurement demonstrate pluses and minuses.

Table 68: Impact – The Effect of Sales Measurements on Performance

Primary Service Sales Measurement	Survey	Annual Revenue Growth	Bid-Win Ratio	Size of Pipeline	Refer. Clients	Util.	On-time project delivery	Rev. per billable consult.	EBITDA
Service Revenue	34.7%	8.7%	4.55	181%	67.7%	68.2%	75.5%	$195	12.9%
Service Bookings	19.9%	10.0%	4.89	221%	69.2%	70.8%	75.2%	221	12.4%
Service Margin	6.3%	12.7%	5.07	204%	77.6%	64.3%	78.9%	225	14.9%
Client Satisfaction	7.9%	6.2%	4.91	181%	78.4%	72.2%	81.9%	190	16.7%
All of the Above	31.1%	8.6%	5.11	180%	73.9%	72.8%	81.6%	205	15.0%
Total / Average	**100.0%**	**9.0%**	**4.85**	**190%**	**71.4%**	**70.2%**	**78.1%**	**$205**	**13.9%**

Source: Service Performance Insight, February 2017

This year "client satisfaction" appears to produce the best results for quality measurements but it seems to negatively impact growth. A big drawback to incenting sales with too many metrics is that they become hard to measure and enforce. Although service revenue measurements are the most common (34.7%), they appear to produce mediocre performance particularly in reference clients and win ratios.

This year service bookings measurements produced the largest pipelines. Service margin targets are harder to measure and calculate as they can only be measured after the project has been completed. Many firms are switching to "Service Margin" as a primary metric but they use "average cost" figures to calculate deal margin to simplify sales compensation. Interestingly, service margin as the primary sales measurement produced the worst utilization, but it did produce the highest growth and revenue per consultant.

"Client satisfaction" as the primary sales measurement was reported by 7.9% of the benchmark respondents. With client satisfaction as the primary measurement, service sales people have a vested interest in the quality and timeliness of project delivery. In this year's survey, for sales teams based on client satisfaction, their firms delivered the best on-time project delivery and reference client results. The pursuit of client satisfaction at any cost may incent the sales force to drive service delivery "to do whatever it takes" without regard to margin or future growth.

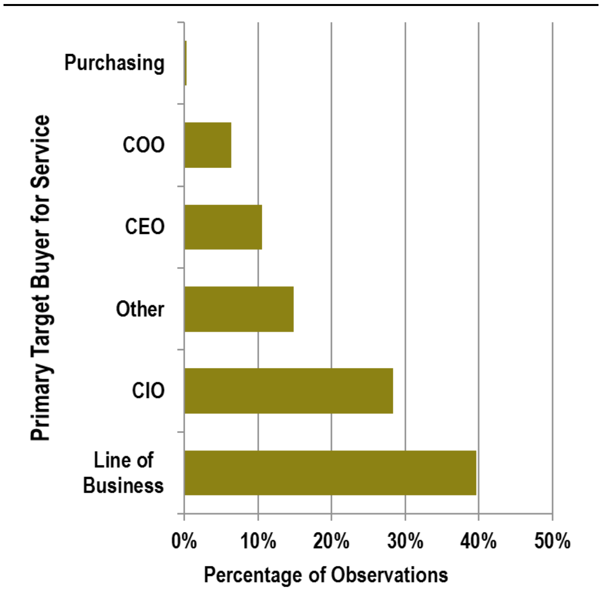
Regardless of primary sales measurement, clarity and fairness drive the best results. SPI recommends an open book approach to allow sales people to measure and improve their own performance.

Primary Service Target Buyer

SPI Research asked "who is the primary buyer for your services"? For the 416 benchmark respondents, the primary target buyer is most likely to be a line of business executive (39.7%); CIO (28.3%); other (14.6%); CEO (10.6%); COO (6.3%); no firms primarily sell to purchasing (Figure 50). Compared to the 2015 survey, more firms identified the CEO as the target buyer and fewer firms identified the CIO as the target buyer. It is getting tougher and tougher to sell to CIOs as they are seeking to reduce the number of vendor relationships while squeezing vendor profits.

Table 69 correlates primary buyer type with other key metrics. Without knowing other aspects, it is hard to come up with definitive best practices but this analysis does reveal some interesting comparisons. Although "calling at the top" is a favored strategy, it appears firms who primarily sell to the CEO have the worst on-time project delivery and poorest project margins. It is hard to get to the CEO and if the CEO is really the decision-maker the project is either very strategic or the organization is very small. This year selling to the CIO produced reasonably good results, neither the best or the worst.

Figure 50: Primary Service Target Buyer



Source: Service Performance Insight, February 2017

The majority of firms sell to a line of business executive. Selling to this buyer type has become a necessity as buying power for many modern, mobile, business applications has shifted to line of business buyers, away from IT. To effectively sell to line of business buyers, solution sellers must truly understand the business and the key metrics and processes that drive it.

Table 69: Impact – The Effect of Primary Buyer Type on Performance

Primary Target Buyer	Survey	Annual Rev. Growth	Bid-to-Win Ratio	Size of Pipeline	Reference Clients	Util.	On-time project delivery	Rev. per billable consultant	Project Margin
CEO	10.6%	8.3%	4.87	184%	75.3%	70.1%	74.5%	$181	31.8%
COO	6.3%	11.0%	4.96	221%	69.0%	70.0%	80.4%	218	34.7%
CIO	28.3%	8.7%	4.95	202%	71.6%	71.9%	77.9%	214	36.1%
Line of Business	39.7%	9.6%	4.97	181%	71.6%	69.6%	78.3%	206	35.7%
Purchasing	0.3%	7.5%	1.50	100%	85.0%	75.0%	95.0%	275	45.0%
Other	14.8%	7.4%	4.40	176%	68.9%	68.6%	78.4%	196	36.1%
Total/Avg.	**100.0%**	**9.0%**	**4.86**	**189%**	**71.5%**	**70.2%**	**78.0%**	**$205**	**35.4%**

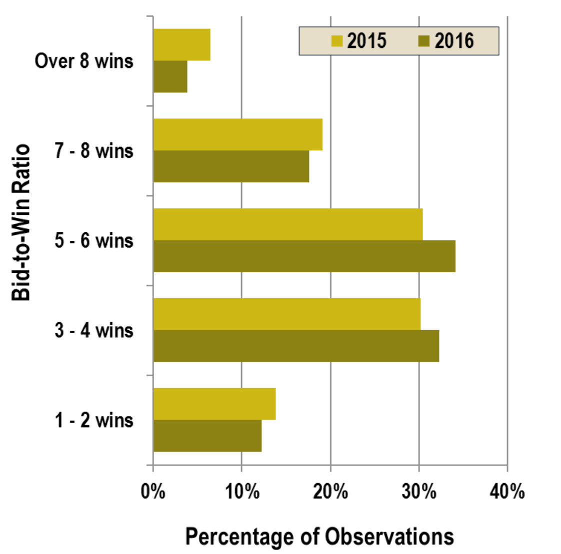
Source: Service Performance Insight, February 2017

Bid-to-Win Ratio

Another critical KPI in the Client Relationships pillar is the Bid-to-Win ratio, which measures the number of wins per ten bids. The Bid-to-Win ratio is a powerful metric for judging sales and marketing effectiveness, but must be analyzed in conjunction with the size of the pipeline; the length of the sales cycle and the cost to pursue the bid. If the Bid-to-Win ratio is too high, it may be an indication that the organization is not aggressive enough in targeting new clients and new services. If it is extremely low, it is an indication the firm is competing in a commoditized market or is not well-positioned or is not doing a good job of qualifying deals. The best deals are those that do not require a bid (sole source) because the client has done business with the firm before and knows they will do a good job or they are so clearly the premium supplier so no one else should be considered. Bid-to-Win ratios were very similar year to year. 12.2% reported Bid-to-Win ratios of 1 to 2; 32.2% reported 3 to 4; 34.1% reported a ratio of 5 to 6 out of 10; 17.8% reported 7 to 8 and 3.8% over 8 (Figure 51).

Table 70 depicts the positive impact of improving bid to win ratios through better deal qualification; reference selling; improved positioning to target the right markets and clients; and improving overall quality and client satisfaction resulting in more and better referrals. This year the optimal ratio is 7 to 8 wins with the highest revenue growth and largest pipelines. Organizations who win over 8 out of 10 deals reported the best on-time project delivery and employee revenue yields.

Figure 51: Bid-to-Win Ratio



Source: Service Performance Insight, February 2017

Table 70: Impact – The effect of improving the Bid-to-Win Ratio

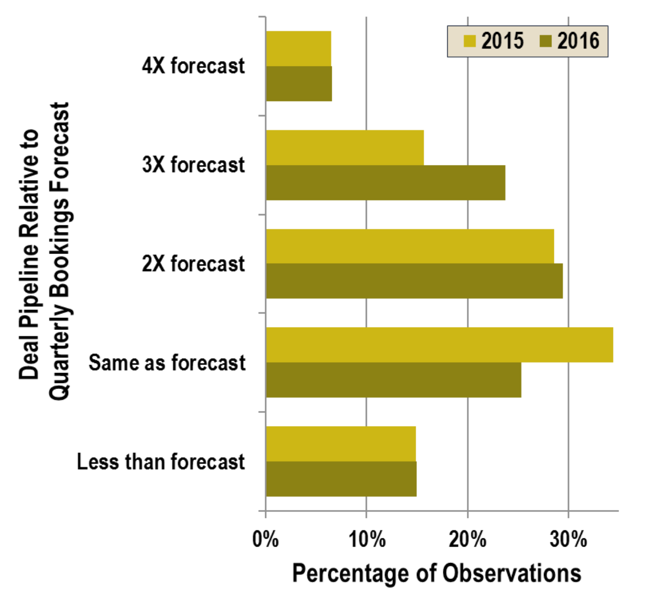
Bid-to-Win Ratio	Survey %	Revenue Growth	Pipeline	Billable Utilization	On-time Delivery	Revenue / Employee (k)
1 - 2 wins	12.2%	6.0%	152%	67.4%	74.5%	$131
3 - 4 wins	32.2%	8.3%	193%	68.8%	74.0%	$154
5 - 6 wins	34.1%	9.3%	194%	71.9%	79.2%	$173
7 - 8 wins	17.6%	11.9%	205%	71.7%	83.9%	$176
Over 8 wins	3.8%	9.6%	185%	71.3%	88.3%	$195
Total / Average	**100.0%**	**9.0%**	**190%**	**70.3%**	**78.1%**	**$163**

Source: Service Performance Insight, February 2017

Deal Pipeline Relative to Quarterly Bookings Forecast

The deal pipeline as compared to the quarterly bookings forecast is an important leading indicator that provides insight into sales effectiveness and future revenue. The size of the deal pipeline shows direct correlation to all major growth indicators – revenue growth; revenue per billable employee; percentage achievement of the annual revenue plan and billable utilization.

Figure 52: Deal Pipeline Relative to Qtr. Bookings Forecast



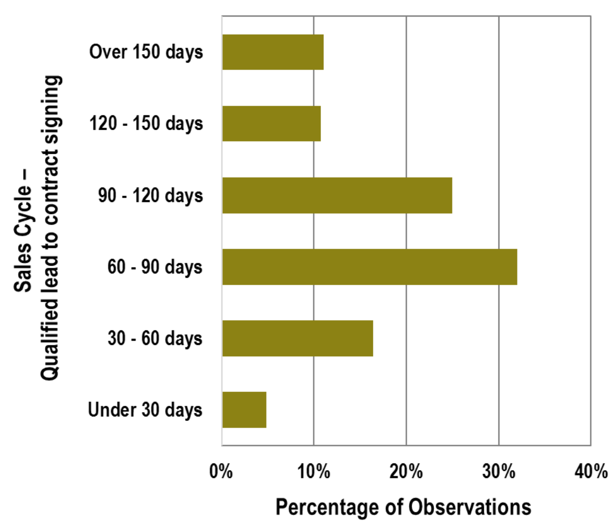
Source: Service Performance Insight, February 2017

A sure sign of growth ahead is that 60% of benchmark participants reported their deal pipeline was two times or larger than the forecast! This is a tremendous improvement from last year. In the 2015 benchmark the average deal pipeline was 172% compared to 189% this year. 30.2% (up from 22.2% last year) reported their deal pipelines were three times or larger than their forecasts which leads to strong growth and profitability (Figure 52). Independents are primarily responsible for this surge as their pipelines improved from 160% last year to 181% this year. ESOs saw a slight improvement with their deal pipelines growing from 196% last year to 202% this year. SPI Research recommends firms pay very careful attention to this metric and take corrective action if their pipelines dip below 200% of forecast.

Length of the Sales Cycle

The length of the sales cycle measures the time it takes to move a qualified lead to a signed contract. Sales cycle length is a leading indicator of demand as sales cycles elongate when the economy is contracting and shrink when the economy is expanding. The overall average length of the sales cycle increased this year from 88 to 92 days. Embedded ESOs reported much longer sales cycles (107 days) than independents (84 days). The length of the sales cycle increases proportionately with the size of the organization as larger organizations have more players involved and focus on larger, more complex deals.

Figure 53: Length of Sales Cycle



Source: Service Performance Insight, February 2017

Organizations with the shortest sales cycles reported some of the worst metrics with moderate revenue growth, small pipelines, projects and margins. The optimum sales cycle appears to be 120 to 150 days, producing the largest pipeline, most revenue from new clients and highest project margins. Longer sales cycles correlate with larger projects. Firms should strive for overall portfolio balance with a mix of easy to close fixed price assessments combined with longer and more complex custom projects.

Table 71: Impact – Length of Sales Cycle on Performance

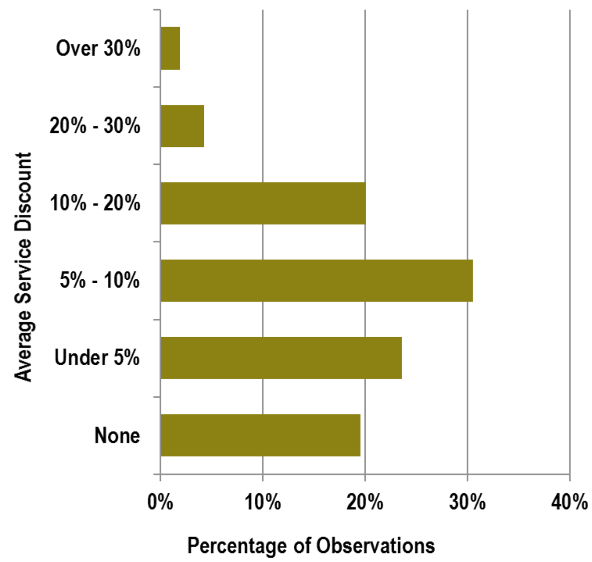
Length of Sales Cycle	Survey %	Revenue Growth	Bid-to-Win Ratio	Pipeline	Revenue from New Clients	Project Duration (man-months)	Project Margin
Under 30 days	4.8%	7.8%	4.69	124%	21.4%	27.1	32.1%
30 - 60 days	16.4%	8.7%	5.32	159%	27.6%	14.5	34.1%
60 - 90 days	32.0%	9.9%	5.05	186%	28.7%	22.8	35.6%
90 - 120 days	25.0%	8.1%	4.73	185%	28.8%	24.1	35.6%
120 - 150 days	10.8%	11.6%	4.60	236%	34.7%	32.4	36.3%
Over 150 days	11.0%	6.9%	4.06	237%	33.7%	41.6	34.9%
Total / Average	**100.0%**	**9.0%**	**4.84**	**189%**	**29.4%**	**25.1**	**35.2%**

Source: Service Performance Insight, February 2017

Service Discounting

In professional services, it is more difficult to develop a pricing strategy than in product-based organizations. It is easy to do comparative shopping at a grocery store or for products on-line. In professional services, pricing is more art than science with wider variability in terms of costing, estimating, proposing and pricing. Professional services executives cannot just look at expected project cost, sales forecasts, or some other key performance indicator to set pricing. Supply and demand definitely come into play. The more unique the offering; the more demonstrable the return on investment; the larger the reference base; the harder to find skilled talent; the more premium pricing is warranted.

Figure 54: Average Service Discount



Source: Service Performance Insight, February 2017

The Bid-to-Win ratio is critical, but must be viewed in conjunction with project margin to determine the optimal pricing strategy. Professional services executives should not mind losing bids when they hurt margin because "bargain basement" pricing rarely results in win-win partnerships. If firms are continually asked to discount pricing it is a sure sign that something is wrong. Either they have not properly positioned the value they provide or they are moving into a commodity market. There is absolutely no way service organizations can make up in volume the amount they lose per deal because margins are too thin and there is no way to recoup hours worked at cheap rates. Table 72 shows that "no discount at all" provided by almost 20% of survey respondents, delivers the best performance.

Table 72: Impact – The effect of discounting

Level of Discounting	Survey %	New Client Revenue	Revenue Growth	Bid to Win	Sales Pipeline	Billable Utilization	On-time projects	Project Margin
None	19.6%	25.0%	11.9%	5.04	185%	71.3%	71.3%	37.4%
Under 5%	23.6%	27.2%	8.7%	4.65	167%	71.1%	71.1%	37.6%
5% - 10%	30.6%	29.1%	8.5%	5.00	194%	69.5%	69.5%	33.0%
10% - 20%	20.1%	34.6%	7.7%	4.73	207%	70.5%	70.5%	36.0%
20% - 30%	4.3%	35.6%	8.8%	4.84	227%	68.3%	68.3%	30.2%
Over 30%	1.9%	43.1%	9.3%	3.83	167%	70.2%	62.5%	16.3%
Total / Avg.	**100.0%**	**29.5%**	**9.1%**	**4.84**	**189%**	71.3%	**70.2%**	**35.1%**

Source: Service Performance Insight, February 2017

As shown in Table 72, the majority of firms (73.6%) offer discounts of 10% or less. Although limiting discounting does negatively impact growth, it enhances bid-win ratios, billable utilization, on-time project delivery and client referenceability.

Profit is the fuel that drives expansion. While not every project achieves its desired profitability goal, one or two money-losing projects can quickly undermine all net profit. Critical analysis should be undertaken to review the project and client portfolio to determine the types of clients and projects that make the most money. Quite often this analysis reveals 80% of profit is coming from only 20% of clients and conversely, the firm may make no money at all on smaller transactions or certain customers.

Professional services organizations must use both their application infrastructure, as well as pricing tools to improve financial performance. This combination can help PS executives better understand the range of pricing available to them, combined with the probability of winning bids.

When creating a large bid, all costs including sales costs should be measured. Very few projects are delivered precisely on time and on budget, so change control is an important element of pricing. If a client demands pricing concessions, scope must be contained, but the client must also understand and accept the risks. Best practices in pricing include creating a dedicated proposal center to ensure all proposals are of the highest quality. Bid, estimate, pricing and contract reviews are all good investments which pay dividends by improving project margins and reducing the risk of overruns and losses.

Referenceable Clients

The percentage of reference clients is considered one of the most important KPIs in the professional services sector. Until this year, average "client referenceability" had steadily declined from 74.5% in 2013 to 73.8% in 2014 to 70.4% in 2015. Client referenceability improved slightly in 2016 to 71.5%. Table 73 shows 39.6% of the benchmark respondent's claim over 80% of their clients are referenceable. On the other hand, 42.4% report less than 70% of their clients are referenceable. This is a very concerning metric. ***Embedded organizations reported only 64.7% of their clients are referenceable. Independents fared a little better with 75.4% referenceable clients. Clearly these numbers must improve to sustain PS industry growth.***

Client references have a strong correlation with service sales effectiveness; the length of the sales cycle; ease of getting things done and whether employees would recommend the PSO as a great place to work. The relationship between client and employee satisfaction is irrefutable.

Table 73: Impact – Client "Referenceability"

Score	Survey %	Revenue Growth	Bid-to-Win ratio	Billable Utilization
Under 50%	16.4%	7.8%	3.87	65.4%
50% - 60%	12.6%	9.3%	4.18	67.4%
60% - 70%	13.4%	9.1%	4.54	68.2%
70% - 80%	18.0%	9.2%	4.75	71.6%
80% - 90%	18.3%	6.9%	5.33	74.8%
Over 90%	21.3%	11.6%	5.78	71.8%
Total / Avg.	**100.0%**	**9.1%**	**4.83**	**70.2%**

Source: Service Performance Insight, February 2017

Client references are a leading indicator of organizational success. As this percentage increases, so does the probability of high levels of growth; higher Bid-to-Win ratios and lower sales costs. Any maturity improvement plan must address measuring and improving client satisfaction and building references. Best practices include post-project engagement surveys; acquiring client references and testimonials as part of project close-out along with frequent and consistent project quality reviews. Executive teams should review the project dashboard at weekly meetings and immediately assign executives to troubled projects.

Primary Responsibility for New Solution Development

For the past five years SPI Research has focused intently on solution development by developing a new [Service Lifecycle Management methodology](), toolkit and training program. This focus has proven the impact of solution development and demonstrated how nascent the discipline of service packaging is within PS. SPI's research has shown the PS industry is keenly interested in moving to more repeatable service offers with the goal of making it easier to sell and deliver consistent, high quality services. Most often solution development is assigned to part-time resources that lack both the knowledge, time and funding to fully develop solutions. This benchmark shows 21.4% have created a dedicated solution development group; 23% rely on product management; 18.7% use service operations; and 21.4% stated "other". 9.6% rely on service engineering and only 5.9% rely on service marketing. These percentages are similar to last year with the exception of product management which has significantly increased from 12.7% in 2014 to 23% this year.

Figure 55: Primary Group Responsible for New Solution Development

Source: Service Performance Insight, February 2017

Pricing and Deal Structure

Every year, SPI Research has seen a shift in pricing and deal structure, as clients have become increasingly concerned about risk and cost overruns, and have pushed more accountability to the PSO through fixed fee or shared risk contracts. Until 2014 the percentage of fixed fee work steadily increased from 35.5% in 2009 to 44% in 2013. ***In 2014 we saw a resurgence in time and materials priced contracts – signaling increased demand for services. 2014 was the first time in eight years that we saw an increase in time and materials pricing from 51.7% in 2013 to 58.8% in 2014. This trend reversed in 2015 and 2016 with time and materials contracts now representing 55.4% of all contracts.*** This year the most dramatic change in the mix of types of consulting sold was a shift to more time and materials work (55.4%) and a decline in shared risk and performance based contracts (2.8%). This KPI is important to watch. Time and materials based pricing puts emphasis on accurate resource management, time collection and reporting. Fixed price pricing puts an emphasis on accurate estimates, project costing and change management. Either way PSA applications are critical to support accurate time and cost capture and billing.

Table 74 compares billing models for embedded and independent PSOs. ESOs have been steadily shifting to fixed fee contracts – moving from 34% in 2009 to 46.6% in 2013. ***The trend reversed in 2014 with ESOs shifting back to time and materials contracts. Now in 2016 we see ESOs slightly favor time and materials contracts (53.5%)***. Independents have always preferred time and materials contracts but they too have shifted to more fixed price work, from 37% in 2009 to 38.1% in 2016. By Geography, time and materials is the prevalent pricing structure. In this survey, only the largest organizations favored fixed fee contracts. This year the number of shared risk or performance-based contracts decreased from 6.4% to 2.8% of total deals.

Table 74: Fee Structure by Organization Type and Geographic Region

Fee Structure	2015 Survey	2016 Survey	ESO	PSO	Americas	EMEA	APac
Time & Materials	46.7%	55.4%	53.5%	56.5%	56.2%	55.6%	47.8%
Fixed Time / Fixed Fee	39.7%	38.9%	40.4%	38.1%	38.6%	38.0%	44.5%
Shared Risk / Performance based	6.4%	2.8%	3.0%	2.6%	2.4%	2.9%	5.8%
None of the Above	7.2%	2.9%	3.1%	2.7%	2.8%	3.5%	2.0%
Total / Average	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Service Performance Insight, February 2017

By vertical, architects and marketing and advertising firms rely on fixed price contracts. IT consultancies (65%) favor time and materials contracts. Staffing providers reported 20% of their contracts are "shared risk or performance-based". As the SaaS market has become more mature a greater emphasis is being placed on customer adoption so SaaS firms focus on "time to value" with fixed price rapid implementation contracts. Net profit is not necessarily tied to pricing structure as it is possible to make good service margins with either time and materials or fixed price contracts. Accurate estimating, excellent project management, good communication and change control are the most important elements in ensuring quality services are delivered at planned margins.

Table 75: Fee Structure by Service Market Vertical

Fee Structure	IT Consult.	Software	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.	Hard. & Network.
Time & Materials	65.0%	60.2%	56.9%	43.3%	54.5%	41.4%	20.8%
Fixed Time / Fixed Fee	30.7%	36.7%	37.0%	52.7%	41.4%	40.0%	76.7%
Shared Risk / Performance-based	2.3%	1.3%	1.9%	2.1%	0.7%	2.9%	2.5%
None of the Above	2.0%	1.9%	4.2%	1.9%	3.4%	15.7%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Service Performance Insight, February 2017

Accountancies, marketing and advertising and research and development organizations favor annual retainers with intellectual property and licensing arrangements.

Table 76: Fee Structure by Service Market Vertical

Fee Structure	R&D	VAR	Acct.	Advert. (Marcom)	Staff.	Other PS
Time & Materials	44.2%	44.6%	36.7%	25.6%	20.0%	53.8%
Fixed Time / Fixed Fee	43.4%	44.6%	55.8%	60.6%	60.0%	39.2%
Shared Risk / Performance-based	7.4%	7.5%	6.7%	0.0%	20.0%	5.2%
None of the Above	5.0%	3.2%	0.8%	13.8%	0.0%	1.8%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Service Performance Insight, February 2017

Who sells services?

The survey asked respondents "Who sells professional services?" Tables in the following sections show the types of service sales representatives; their bookings targets; annual base compensation and on-target variable.

Embedded organizations (ESOs) rely primarily on the product sales force for service leads and sales; many of these organizations compensate their product sales reps equally for products and services. In other cases, the product sales force receives a lower commission on services as compared to products but achievement of the service quota is a requirement for achieving "club".

Embedded ESOs do not carry the total cost of sales or marketing in their profit and loss statements. Top-performing ESOs have developed service packages and service estimating tools to help the product sales force articulate and sell the value of services. In many cases, the product sales organization is allowed to price and quote service packages as long as discounts are limited. Product sales reps are backed up with PS engagement managers or solution architects based on a team selling approach. This "hunter-skinner" model is reasonably effective with "hunters" focused on new business development while skinners bring in business domain and consulting knowledge to develop requirements and proposals to upsell existing accounts.

Independents have two primary sales models: senior partner-led or dedicated solution sales. There are pluses and minuses with both approaches. In the traditional consulting pyramid, new college hires (at the bottom of the pyramid) work their way up to partner status over a period of years or even decades. The traditional consulting pyramid relies on junior consultants, fresh out of college or graduate school, to perform the majority of analysis and technical work. As they grow in domain knowledge, consulting and leadership acumen they move up the pyramid to become case team leaders, project leaders, program leaders and ultimately, if they are good enough, they are offered partnership status to share in the firm's direction and profits. The benefit of the traditional consulting pyramid is that it provides a constant source of fresh new talent and ideas from leading universities while offering significant rewards to those who stay with the firm and make it to the top. The downside is that it is an expensive model, and the cost to recruit the top students from the top universities has become prohibitive. Further, today's top college graduates are no longer apt to stay with the same firm for decades to repay their years of apprenticeship.

The new model for independents is to hire dedicated solution sellers – often from technology firms. This model is far less expensive – the cost to recruit and ramp a new hire is a fraction of the apprenticeship model but the downside is that very few product sales people are able to become effective solution sellers. There simply is no substitute for domain knowledge and experience gained from years of delivering consulting. In this model, SPI Research sees a revolving door of sales people who don't make the grade because they are unable to develop new opportunities without substantial support from the consulting organization.

The most effective model is a hybrid combination of the two whereby senior solution consultants are groomed to become solution sellers. This new approach ensures domain expertise and intimate consulting delivery knowledge without the overhead of partnership profit and loss management. The challenge is to convince senior consultants and solution architects to move into full-time business development roles. Selling aptitude, training and compensation are required.

Table 77: Professional Services Sales KPI's by Organization Type and Geography

Key Performance Indicator (KPI)	Survey	ESO	PSO	Americas	EMEA	APac
Organization Size (people)	499	531	483	465	640	469
Product Sales number of reps selling	14.8	24.5	8.9	16.3	13.8	3.0
Prod. Sales Ann. PS Bookings Target (mm)	$1.45	$1.55	$1.36	$1.52	$1.31	$1.30
Product Sales Annual Rep. Base Pay (k)	$96	$96	$95	$98	$85	$104
Product Sales On-target Variable	21.8%	23.2%	20.5%	21.7%	21.3%	24.1%
Service Sales number of reps selling	6.7	8.4	5.7	6.7	8.1	3.8
Service Sales Ann. PS Book. Target (mm)	$2.05	$2.11	$2.03	$2.20	$1.63	$2.01
Service Sales Annual Rep. Base Pay (k)	$102	$99	$104	$104	$87	$120
Service Sales On-target Variable	20.3%	18.2%	21.5%	20.2%	18.7%	24.2%
Service Mgr. number of reps selling	8.7	10.0	7.9	9.7	6.8	4.9
Service Mgr. Ann. PS Book. Target (mm)	$1.27	$1.46	$1.15	$1.23	$1.38	$1.30
Service Managers Annual Base Pay (k)	$108	$111	$107	$116	$85	$106
Service Managers On-target Variable	12.5%	13.5%	11.9%	12.9%	12.0%	10.9%
Partner Annual number of reps selling	6.9	7.8	6.3	7.1	7.2	4.2
Partner Annual PS Booking Target (mm)	$1.67	$1.73	$1.64	$1.63	$1.78	$1.79
Partner Annual Base Pay (k)	$134	$135	$134	$139	$115	$134
Partner On-target Variable	15.9%	15.2%	16.2%	15.5%	17.3%	15.8%

Source: Service Performance Insight, February 2017

Table 77 is interesting to SPI Research because it shows the average number of services sales people by organization type and geography. It also shows their target quotas, base and variable compensation. Dedicated service sales professionals carry higher service quotas but also have a higher base than product sales people who also sell services. Firm or practice managers carry the highest service quotas but also receive the highest base and variable. For both product sales and service sales quotas and compensation are higher in APac and the Americas and lower in EMEA. Service managers and partners make considerably more in the Americas than in EMEA or APac.

Table 78 shows that both quotas and compensation go up with the size of the organization. It also shows the largest organizations shift to a higher component of leveraged compensation; in other words, lower base salary and a higher component of commission or variable compensation.

Table 78: Professional Services Sales KPI's by Organization Size

Key Performance Indicator (KPI)	Under 10	10 - 30	31 - 100	101 - 300	301 - 700	Over 700
Organization Size (people)	5	20	65	200	500	3,412
Product Sales number of reps selling	3.5	7.8	10.1	15.6	30.6	45.7
Prod. Sales Ann. PS Bookings Target (mm)	$0.49	$1.28	$1.53	$1.48	$1.39	$2.21
Product Sales Annual Rep. Base Pay (k)	$80	$90	$101	$94	$85	$112
Product Sales On-target Variable	13.9%	22.6%	23.2%	23.2%	28.6%	18.1%
Service Sales number of reps selling	1.2	2.0	3.2	7.0	16.3	28.1
Service Sales Ann. PS Book. Target (mm)	$0.34	$1.64	$2.19	$2.38	$3.25	$2.34
Service Sales Annual Rep. Base Pay (k)	$70	$106	$101	$105	$118	$109
Service Sales On-target Variable	12.7%	24.4%	18.4%	22.2%	28.4%	18.2%
Service Mgr. number of reps selling	1.9	2.7	4.5	8.8	23.1	33.7
Service Mgr. Ann. PS Book. Target (mm)	$0.47	$0.78	$1.19	$1.86	$1.42	$2.06
Service Managers Annual Base Pay (k)	$79	$108	$117	$106	$126	$106
Service Managers On-target Variable	13.3%	11.9%	11.6%	13.1%	15.9%	13.9%
Partner Annual number of reps selling	1.9	2.7	3.3	5.1	10.0	33.7
Partner Annual PS Booking Target (mm)	$0.71	$1.47	$1.72	$1.81	$2.39	$2.34
Partner Annual Base Pay (k)	$110	$134	$141	$131	$160	$126
Partner On-target Variable	16.6%	16.9%	12.7%	16.1%	26.4%	19.2%

Source: Service Performance Insight, February 2017

Tables 79 & 80 compares the base, service bookings quota and variable by PS Market. For the most part there is consistency in base salaries, quotas and on-target variable between software, SaaS and hardware PSOs. Executives in management consultancies and marketing and advertising firms have the potential to make more money than their counterparts within technology product companies but they also incur greater risk and must be experts in their fields. It appears SaaS companies have shifted a greater burden for service sales to the product sales force as their overlay PS sales force carries lower PS quotas. SPI Research sees a proliferation of sales roles in product companies – major account sales;

vertical industry sales; product specialty sales; consulting sales; engagement managers; account managers; territory managers and the list goes on and on. From an outsider's point of view the sheer array of solution sellers is overwhelming and must be confusing for clients. Product companies would be well-served to curtail the proliferation of sales people and overlay sales people in favor of real solution selling experts. Embedded hardware reps have greater earning potential based on a considerably higher variable (leveraged) compensation component.

Table 79: Sales Structure by Service Market Vertical

Key Performance Indicator (KPI)	IT Consult.	Software	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.	Hard. & Netwrk.
Organization Size (people)	476	558	323	650	213	262	863
Prod. Sales number of reps selling	9.7	32.0	2.5	5.9	18.9	3.8	71.3
Prod. Sales Ann. PS Bookings Target (mm)	$1.43	$1.59	$0.92	$1.94	$1.58	$1.56	$1.38
Product Sales Annual Rep. Base Pay (k)	$97	$98	$87	$92	$102	$86	$87
Product Sales On-target Variable	24.5%	23.3%	12.3%	22.0%	22.6%	12.5%	37.0%
Service Sales number of reps selling	5.9	7.9	1.7	6.2	6.5	9.4	15.2
Service Sales Ann. PS Book. Target (mm)	$2.14	$1.79	$1.43	$2.20	$1.83	$2.25	$2.67
Service Sales Annual Rep. Base Pay (k)	$104	$104	$108	$108	$98	$78	$105
Service Sales On-target Variable	24.3%	21.1%	14.2%	17.3%	17.5%	15.0%	27.5%
Service Mgr. number of reps selling	8.1	12.3	2.6	9.3	6.9	5.4	18.5
Service Mgr. Ann. PS Bookings Target (mm)	$1.24	$1.18	$0.93	$1.53	$1.01	$2.17	$1.33
Service Managers Annual Base Pay (k)	$108	$115	$118	$101	$101	$113	$110
Service Managers On-target Variable	11.5%	14.4%	11.5%	20.9%	12.5%	14.2%	16.9%
Partner Annual number of reps selling	6.1	9.3	3.1	7.6	3.7	1.5	21.8
Partner Annual PS Booking Target (mm)	$1.73	$1.55	$1.64	$1.77	$1.26	$2.38	$1.88
Partner Annual Base Pay (k)	$135	$135	$137	$137	$122	$155	$153
Partner On-target Variable	17.1%	15.6%	18.8%	19.4%	15.3%	20.0%	17.5%

Source: Service Performance Insight, February 2017

Table 80: Sales Structure by Service Market Vertical Continued

Key Performance Indicator (KPI)	R&D	VAR	Acct.	Advert. (Marcom)	Staff.	Other PS
Organization Size (people)	1,586	83	383	113	98	908
Product Sales number of reps selling	5.2	7.6	4.0	11.0	8.3	17.0
Prod. Sales Ann. PS Bookings Target (mm)	$0.58	$1.30	$2.42	$0.25	$1.88	$1.42
Product Sales Annual Rep. Base Pay (k)	$102	$78	$110	$60	$60	$105
Product Sales On-target Variable	15.8%	23.3%	24.2%	7.5%	23.8%	16.1%
Service Sales number of reps selling	6.0	3.7	5.3	13.2	2.7	11.4
Service Sales Ann. PS Book. Target (mm)	$2.50	$2.31	$0.25	$1.75	$1.75	$2.38
Service Sales Annual Rep. Base Pay (k)	$107	$79	$60	$110	$60	$105
Service Sales On-target Variable	25.5%	13.6%	7.5%	40.0%	7.5%	15.4%
Service Mgr. number of reps selling	4.2	3.2	27.3	19.2	2.0	10.8
Service Mgr. Ann. PS Bookings Target (mm)	$1.58	$1.91	$0.25	$0.25	$1.25	$1.69
Service Managers Annual Base Pay (k)	$88	$121	$98	$110	$73	$105
Service Managers On-target Variable	12.5%	8.6%	7.5%	11.3%	8.8%	11.9%
Partner Annual number of reps selling	2.4	1.9	27.8	7.3	4.7	11.0
Partner Annual PS Booking Target (mm)	$2.00	$2.25	$0.25	$0.92	$0.75	$2.00
Partner Annual Base Pay (k)	$126	$145	$118	$162	$145	$127
Partner On-target Variable	12.5%	7.1%	7.5%	25.0%	4.2%	12.2%

Source: Service Performance Insight, February 2017

10. Human Capital Alignment Pillar

In 2017 talent continues to take center stage as both a top challenge and a top improvement priority in the world of professional services. Global economic recovery, changing workforce dynamics and technology pervasiveness in both our professional and private lives have transformed the world of work. Today's consulting workforce is increasingly virtual, with almost as many consulting hours delivered off-site as on the client's site. In this year's benchmark, 27.5% of consultants primarily work from home with another 4.9% described as contingent workers either onshore or off. The new world of consulting work depends on a multi-lingual, multi-generational, multi-cultural, technically-skilled, project-based workforce.

Top performing organizations continually point to their unique, employee oriented cultures as the number one element in their business success. Culture is defined as the system of values, beliefs and behaviors that define how work really gets done. Culture brings together the implicit and explicit reward systems that define how an organization works in practice, no matter what an organizational chart, business strategy, or corporate mission statement may say.

Service Performance Insight's "Human Capital Alignment" pillar encompasses all elements of the Professional Services workforce strategy. Human Capital Alignment focuses on both the people processes and systems required to recruit, hire, ramp, retain and motivate a high-quality consulting workforce. The following table shows how PSOs mature across the Human Capital Alignment pillar:

Table 81: Human Capital Alignment Maturity Model

	Level 1 Initiated	*Level 2 Piloted*	*Level 3 Deployed*	*Level 4 Institutionalized*	*Level 5 Optimized*
Human Capital Alignment	Hire as needed. Generalist skills. Chameleons, Jack of all Trades. Individual heroics. May perform presales as well as consulting delivery.	Begin forecasting workload. Start developing job and skill descriptions & compensation plans. Rudimentary career paths. Start measuring employee satisfaction	Resource, skill and career management. Employee satisfaction surveys. Training plans. Goals and measurements aligned with compensation. Attrition <15%	Business process and vertical skills in addition to technical and project skills. Career ladder and mentoring programs. Training investments to support career. Low attrition, high satisfaction	Continually staff and train to meet future needs. Highly skilled, motivated workforce. Outsource commodity skills or peak demand. Sophisticated variable on and off-shore workforce model.

Source: Service Performance Insight, February 2017

Today's Professional Services leaders must squarely confront the realities of attracting and retaining a younger workforce against the backdrop of a technical labor shortage. Globalization has significantly impacted workforce strategies with many service providers providing hybrid on and off-site resources via regional and global competency centers. Based on technology advances, consulting emphasis is shifting toward business process and vertical industry expertise however demand for horizontal application and technical skills still remains high.

SPI Research found Human Capital Alignment metrics contain the highest number of performance indicators with *extremely strong* correlation to success — meaning, employees, and how they perform once onboard ultimately determine success or failure (Table 82).

Table 82: Human Capital Alignment Performance Indicators tied to Maturity levels

Maturity Level	Level 1	Level 2	Level 3	Level 4	Level 5
Recommend Company to Friends/Family (1-5 scale)	3.70	4.23	4.44	4.67	4.86
Employee annual attrition - voluntary	8.7%	9.3%	7.0%	7.0%	7.7%
Employee annual attrition - involuntary	4.9%	6.2%	5.1%	5.4%	7.1%
Non-billable project hours	194	119	126	92	92
Billable Project Hours	1,250	1,409	1,422	1,523	1,533
Well-understood career path for all employees (1-5 scale)	2.43	2.99	3.42	3.62	4.23
Employee billable utilization	60.7%	68.4%	72.3%	78.8%	79.5%
PS Profit (EBITDA)	**6.1%**	**9.8%**	**13.3%**	**17.7%**	**24.8%**

Source: Service Performance Insight, February 2017

The Talent Cliff

The world's greatest economic asset is the hard work, motivation and resilience of its workers. When employees can master new skills, contribute their full talents, and be rewarded fairly, businesses, families and communities thrive. However, too many workers do not progress to more senior roles, despite their desire to learn new skills and earn higher-paying jobs. Increasingly developed nations are creating initiatives to realize the full potential of their workforces, by empowering workers with the education and training they need to contribute more, earn higher wages and build a fulfilling career.

In the technology professional services market, the war for talent continues unabated. In fact, the gap between the demand for technology consulting workers and the talent with the requisite critical thinking, analytic and communication skills to fill these roles is widening. The world's economy has become knowledge and project-based yet a looming talent cliff threatens to derail economic growth.

By 2018, the US will face a projected **shortfall of 223,800** workers with background in Science, Technology, Engineering and Math. By 2022, the U.S. is projected to have a deficit of at least one million college-trained workers in science- and technology-related fields. McKinsey's and Deloitte's research projects a shortage of 30 to 40 million college-educated workers by 2020, projecting future unemployment gaps in India and China where educational opportunities are limited.

Global forces have come together to produce this talent cliff tsunami:

- Δ Baby Boomers (born between 1946 and 1964) are exiting the workforce without enough skilled gen X, gen Y and millennial workers to replace them. The first baby boomers started turning 65 in 2011. 80 million will exit the workforce over 20 years—which yields 4 million a year, or *10,000* a day who must be replaced.
- Δ Underfunding of education particularly in Science, Technology, Engineering and Math meaning not enough college graduates with the requisite skills for today's technology-centric roles. Education systems are struggling to keep up with the need to arm the workers of tomorrow with active, hands-on technology-based learning. At the same time, efforts must be made to overcome the traditional gender bias which persists for learners, employees and employers in technology fields.
- Δ A growing gender gap in which less than 25% of IT jobs in developed countries are held by women. According to HR Magazine, lack of gender diversity in IT costs the UK over $4 billion annually. Further, in a 2014 TechWeek study of the UK, only one in 20 IT job applicants is a woman. This growing gender gap starts at an early age with parental and education bias which mushrooms throughout education and employment systems to solidify IT gender bias.
- Δ Combined with unenlightened immigration policies which have capped the number of visas for skilled knowledge workers. This year in the United States, 233,000 foreigners applied for the H-1B, the most common visa for high-skilled foreign workers. That's up significantly from 2014 (172,500 applications) and nearly double the applicants from 2013 (124,000) but only 85,000 H1B visas were granted, primarily for workers with Masters' degrees. The Trump administration is in the process of reviewing the H1B policy which could lead to lower quotas and greater shortages.

All of this at exactly the same time that growth in professional service revenue is surging and "buy local" has become a new mantra! Highly skilled workers are in great demand, making it critical for organizations to become a "talent magnet" to create a steady pipeline of top people.

Where the Jobs Are

Based on a survey of 700 North American IT leaders conducted by TEK Systems, programmers and developers prevail as the most critical IT skill sets year over year, with more than 40 percent of IT leaders consistently putting them at the top of the skills they need. Software engineers are also in demand. Quality assurance (QA) and testing roles have nearly quadrupled from 5 percent to 19 percent since last year. Project managers have held steady in the top three rankings since 2015.

In terms of difficulty in finding top talent, IT leaders say programming and development talent represent the most difficult-to-find skills. Networking and security skills hold the second and third most difficult-to-fill rankings this year, according to 29 percent and 28 percent of IT leaders, respectively. Although still hard to find, the severity of talent shortages in networking and security is diminishing. Architects have replaced database administrators as the fourth most difficult to find. Interestingly, mobile skillsets have moved from 11th to last position this year as software suppliers have increasingly incorporated mobility into their platforms, requiring fewer IT consultants.

Table 83: Difficulty in Finding Top IT Talent

Difficulty in Finding Talent Ranking	2015	2016	2017
1	Programmers and developers (44%)	Programmers and developers (65%)	Programmers and developers (42%)
2	Software engineers (35%)	Security (45%)	Networking (29%)
3	Architects (34%)	Software engineers (42%)	Security (28%)
4	Project managers (33%)	Database administrators* (39%)	Architects (28%)
5	Security (32%)	Project managers (38%)	Software engineers (27%)
6	Business analysts (25%)	Networking* (37%)	Project managers (23%)
7	Business intelligence (24%)	Architects (36%)	Business intelligence (19%)
8	Big data (23%)	Business analysts (35%)	Database administrators (18%)
9	Help desk / technical support (21%)	Business intelligence (34%)	Business analysts (18%)
10	Cloud (14%)	Big data (28%)	Cloud (15%)
11	Mobile (11%)	Mobile (27%)	Big data (13%)
12	Social technology experts (9%)	Help desk / technical support (24%)	Help desk / technical support (11%)
13	-	Digital marketing* (22%)	Quality assurance / testing (11%)
14	-	Cloud (15%)	Digital marketing (11%)
15		Quality Assurance (15%)	Mobile (9%)

Source: TEK Systems Annual IT Forecast, 2017

Talent Priorities

Changing workforce dynamics are driving PS executives to create a different type of workforce that requires technical and client management competency with equal parts of flexibility, autonomy and accountability. One of the most important challenges for today's Professional Services leaders is competing for top talent in a level, global, web-enabled playing field of "digital natives" who value collaboration and "cool" new technologies more than security and remuneration. Today's Human Capital Alignment challenges include:

- Attracting, retaining and motivating top talent;
- Managing through a technical labor shortage;

- Δ Overcoming traditional gender biases to educate, attract and retain more female and minority workers;
- Δ Taking on the increased burden of healthcare costs which continue to rise faster than workforce productivity improvements;
- Δ Worldwide growing income and wealth inequality which reduces the ability of low-skilled workers to climb the economic and educational ladder to become the professional services employees of the future;
- Δ Managing a global, multi-lingual, multi-cultural, multi-generational workforce; and,
- Δ Managing a variable and/or contingent workforce.

Figure 56: 2017 Workforce Priorities

Source: Service Performance Insight, February 2017

Talent Strategies

To fill the workforce void, more and more PSOs are developing innovative new talent strategies: close partnerships with local universities; new hire internships; job-sharing programs; flexible work – study – childcare options; on-boarding programs; on-the-job training and mentoring combined with extensive "on-shore" assignments for "off-shore" employees. Increasingly the reputation of the firm as a "great place to work" is just as important and intimately intertwined with "client referrals." What this all boils down to is that talent is fast becoming the number one make-it or break-it element in professional services growth – or even survival.

To meet these demands, top PSOs are:

- Δ Focusing on programs to hire and train entry-level talent with skills in science, technology, math and engineering combined with strong written and oral communication skills.
- Δ Investing in internships and college hiring to groom the next generation of consultants.
- Δ Cross-training current employees who have strong analytic and communication abilities.

- Sponsoring training and work visas for international workers with strong backgrounds and skills.
- Offering flexible work arrangements – work from home, job-sharing, remote service delivery and child care options along with generous time-off and sabbatical arrangements.
- Building a culture of excellence – the best and brightest are attracted by leading edge technologies, clients and projects including a culture that supports collaboration and innovation.
- Paying for performance – linking compensation to knowledge and skills growth along with contributions to the practice – not just revenue generation alone.
- Investing in employee engagement – Communication, training, recognition, equitable pay, team building events and flexible work arrangements are essential to keeping a talented workforce engaged.

Finding, attracting and engaging a talented workforce is both the top challenge and the top success factor for today's professional services organizations. The age-old tactic of stealing skilled consultants from competitors and clients is no longer effective with too many firms competing for too few experts. More than ever before, the hallmark of the Best-of-the-Best PS organizations is their focus on college hiring and developing their own young consultants from the ground up. This focus favors rapidly growing firms who can build and sustain recruiting relationships with top universities. Top firms are developing summer internship programs and new hire on-boarding programs. Although these programs are expensive, they are well worth the effort when they manifest in young, highly skilled and highly motivated consultants who feel they are part of a vibrant culture which promises them career and knowledge advancement. Today's workers also crave a sense of mission to give purpose to their work.

The impact of technology on the new world of work is all-encompassing – social interconnectivity through LinkedIn, Facebook, Twitter, Glassdoor and a host of other networking sites has transformed recruiting and retention. So much so that in-demand consultants with hard-to-find skills are besieged by unsolicited job opportunities. The concepts of brand and employee engagement have never been more important. This means PS firms must not only be a great place to work but must increasingly differentiate themselves through their unique cultures, using their reputation as a primary recruiting and retention tool. At the same time, consultants are building their own brands – publishing their own opinions, thought leadership and intellectual property making it harder than ever before to safeguard the firm's knowledge assets.

The Consulting Pyramid

The traditional consulting pyramid (Figure 57) is a workforce model based on "Finders, Minders and Grinders." The Managing Partner (PS VP) is the chief client relationship manager, responsible for developing a trusted advisor relationship with key clients. The Managing Partner is responsible for developing new business and managing the profitability of the practice. The "Minders" are the regional managers, project managers, engagement managers and case team leaders responsible for translating the customer's requirements into a project plan and then managing all aspects of project delivery. In the traditional consulting pyramid, the "Grinders" are the technology and business consultants who perform the majority of the work. In the traditional model, the "Grinders" (young consultants fresh out-of-college or graduate school), deliver most project billable hours and profit.

Many independent PS firms have developed a solution selling sales force, often with lackluster results. The fundamental reason why the classic consulting pyramid has lasted for years is that PS clients do not want to be "sold" – they seek consulting firms based on their demonstrated ability in solving specific business problems. Prospective consulting clients require the senior practice leader to help them articulate and design a solution. On the other hand, embedded PSOs rely heavily on the product sales force to bring them into deals so the role of embedded PS leaders is one of forging alliances with other cross-functional executives as well as building the overall PS governance structure.

Figure 57: The Consulting Pyramid - Finders, Minders and Grinders

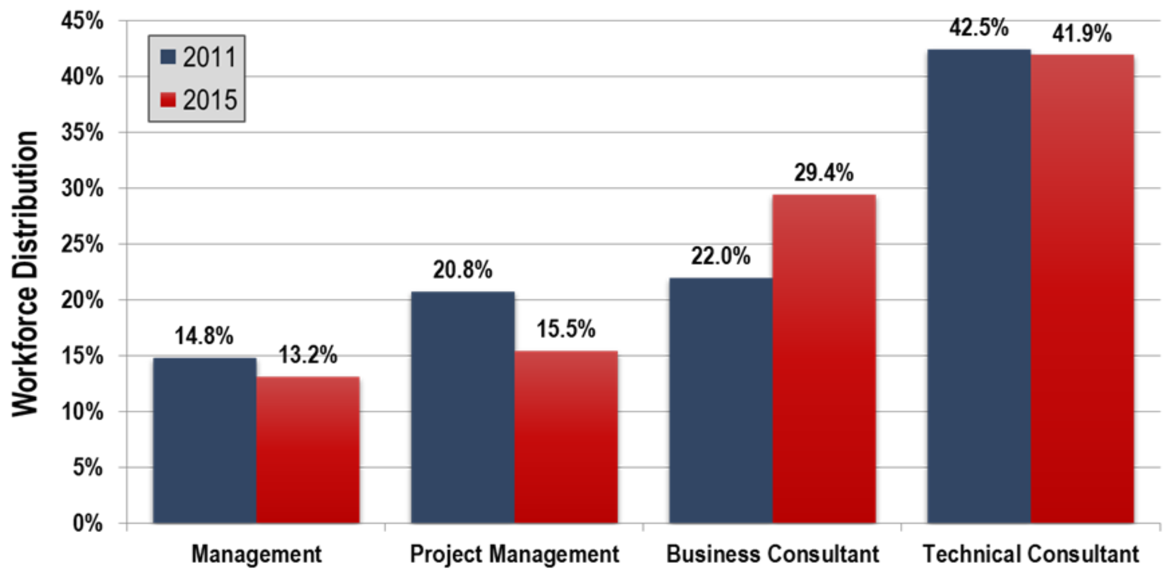
Source: Service Performance Insight, February 2017

Important Changes in Workforce Composition

Worldwide the traditional consulting pyramid is alive and well with the percentage of resources in management (13%), project management (16%), business consulting (29%) and technical consulting (42%) reflecting the majority of work is performed by business consultants and technical resources at the base of the pyramid (Figure 58).

Since the 2011 SPI Research PS Pricing report, the business consulting job category has experienced the greatest growth; growing from 22% of the global PS workforce in 2011 to 29.4% in 2015. The percentage of PS workers in billable management roles has declined from 14.8% in 2011 to 13.2% in 2015. Project management roles have declined from 20.8% to 15.5% while technical consulting roles have declined slightly from 42.5% to 41.9% of the workforce.

Figure 58: Comparison 2011 to 2015 Workforce Distribution by Employee Role



Source: Service Performance Insight, 2015 SPI PS Global Pricing Report

This shift to more business consulting and less technical consulting roles reflects underlying technology shifts from complex and custom to social, mobile and cloud-based. These changes in workforce demographics clearly mirror overall shifts in the technology sector as software and hardware move to the cloud, requiring less customization and integration, so fewer technical consultants and project managers are required while streamlining and enhancing business processes has become a priority.

As technology buying power has shifted from IT to business buyers, significantly more industry, business process, workflow and change management skills are required. Increasingly, Professional Services firms are starting to recruit and hire consultants who not only possess strong analytic and technical skills but are also able to communicate effectively. This workforce change has significant implications for business and academic leaders as education and management systems must change to support an increasingly virtual, mobile and technology savvy workforce.

Best Talent Practices

Based on our research and discussions with top-performing PS organizations, four areas must be addressed to develop best consulting talent practices.

1. **Confidence in leadership** - Like everything else, it starts with effective leadership. Leaders who are clear about the future direction of the firm, who understand and are able to take advantage of changing market dynamics and are able to openly and honestly communicate the direction of the company and the role employees play in shaping it are crucial to success. PS is a logical, knowledge-driven business so leaders must focus on clarity and a few but impactful improvement priorities. Each of the best firms emphasize open and transparent communication based on a foundation of ethical leadership, open books and systems.

2. **Great place to work** – top performing firms find innovative ways to help over-worked consultants maintain life/work balance. From a facility point of view, firms focus on two priorities – creating open, team-centric workspaces where project teams can meet and collaborate as well as virtual work-from-anywhere environments with state-of-the-art collaboration and remote access tools. Despite the fact that most work is delivered virtually or at the client's site, top firms ensure there are opportunities throughout the year for consultants to meet to enhance their knowledge and skills while celebrating achievements. An ethical, open and recognition rich environment provides the cornerstone of great work places.
3. **Culture** – in today's fast-paced consulting environment the concept of culture is more important than ever. Meet with any top performing firm and you will instantly recognize what sets it apart. It may be a focus on only hiring the best and brightest from certain universities…building a collegial, knowledge-intense environment. It may be building a community-based culture… with a premium placed on local hiring, community relationships and driving business on a local level. Or it may be a culture based on pushing the technology envelope…always seeking the next big thing and willing to invest in innovation. Firms must deliberately focus on what sets them apart to be able to build a brand that embodies the type of clients and employees who will be a best fit.
4. **Growth opportunities** – the best firms provide rich environments for continuous learning. They offer opportunities for formal and informal growth – mentoring, coaching, lunch and learns, best practices, knowledge repositories, collaboration environments and centers of excellence. In today's turbulent talent market, career, skill and knowledge growth are an imperative.
5. **Job Fit** – today's top firms include personality fit as a recruiting essential. Best practices include in-person team interviews along with personality profile testing and scenario role plays. Verification of technical skills and know-how and real on-the-job experience are becoming standard. These subjective assessments elongate hiring times but are offset by greater clarity in job roles, job descriptions and skill profiles.

Table 84: Workforce Engagement Best Practices

Job Fit	Growth Opportunities	Culture	Great Place to Work	Confidence in Leadership
Clear Job Roles & Descriptions	On-boarding & training	Agile, performance oriented	Virtual/flexible/ remote work	Mission & Purpose
Well-defined skills	Mentoring Coaching	Collaborative Communicative	Recognition Rich	Invest in people
Personality fit	Access to knowledge	Hire the best	Ethical, open	Trust & transparency

Source: Service Performance Insight, February 2017

HRMS Business Applications come of age

On the technology front, Human Capital Management (HCM) systems are increasing in importance and usage across the service industry. Traditional HCM applications for recruiting, performance, learning and compensation are moving to the cloud with exciting new social functionality combined with mobile employee access for self-managing careers, skills and preferences. The training industry has exploded with innovation, merging learning and skill-building with on-line video and gamification. In the people-based business of PS, it is only a matter of time before talent management (HCM) and resource management (PSA) functionality become intertwined. Already exciting new cloud-based solutions from Workday, FinancialForce, Oracle Taleo and SAP Successfactors are starting to emerge to seamlessly post job requisitions and skill profiles based on resource demand. Soon vendors and consulting firms alike will make employees central to their value proposition by designing systems that mirror and automate all facets of the employee lifecycle from recruitment to retirement. Supporting global workforce flexibility comes with a price and makes it impossible to run a PS organization by spreadsheet. Resource management and HCM applications are mandatory to accommodate global mobility, staffing and career management. No longer do employees need offices and laptops to stay abreast of business. Now, a smart phone is all they need. This tool enables them to be better connected with coworkers and clients alike, and to better understand current project dynamics, so that they can take appropriate actions readily as conditions change. Alerts help consultants better understand critical issues to be addressed. At the same time, this ubiquitous and ever-expanding flow of information has obsolesced traditional hierarchical management and communication structures, requiring a new form of leadership.

Survey Results

SPI Research analyzed 27 Human Capital Alignment key performance measurements that are critical to attaining superior employee performance. Table 85 portrays trends in human capital alignment. The chief issues facing PS employers are recruiting and retention. Skilled employees have more career choices than ever before resulting in high levels of voluntary attrition. This year, the number of employees would recommend their company as a great place to work increased slightly. Some overwhelmed consultants are choosing to leave professional services altogether, preferring the stability and lower stress of corporate positions.

Table 85: Human Capital Alignment Pillar 5-year trend

Key Performance Indicator (KPI)	2012	2013	2014	2015	2016
Voluntary attrition	7.2%	8.3%	8.9%	7.9%	8.0%
Recommend company to friends/family (1 to 5 scale)	4.29	4.28	4.24	4.19	4.28
Management to employee ratio	9.24	10.13	10.05	11.52	10.00
Days to recruit and hire for standard positions	62.8	61.2	61.8	60.5	62.2

Days for a new hire to become productive	64.4	68.7	64.1	57.9	55.4
Guaranteed annual training days / employee	7.67	9.01	8.20	8.92	8.33
Well-understood career path for all employees (1 to 5 scale)	3.10	3.23	3.14	3.29	3.17
Employee billable utilization	70.3%	70.1%	71.0%	70.6%	70.4%

Source: Service Performance Insight, February 2017

Management span of control declined this year while the days to recruit and hire increased, signaling a tighter job market. The disparity between the number of training days offered by top performing firms (11.5 days) compared to average firms (8.15) widened. In 2016 average billable utilization decreased slightly from 70.6% to 70.4%. Reported average annual billable hours edged down slightly from 1,440 to 1,416. Top performing firms average 80% or higher. Table 86 summarizes important talent management questions by organization type and location.

Table 86: Human Capital Alignment by Organization Type and Geographic Region

Key Performance Indicator (KPI)	2016	ESO	PSO	Americas	EMEA	APac
Employee annual attrition - voluntary	8.0%	7.0%	8.6%	8.0%	7.5%	10.2%
Employee annual attrition - involuntary	5.5%	5.3%	5.7%	5.9%	4.1%	5.8%
Recommend company to friends/family	4.28	4.17	4.34	4.28	4.25	4.37
Management to employee ratio	10.00	10.62	9.67	9.52	11.35	11.11
Days to recruit and hire for standard positions	62.2	68.0	59.0	62.9	65.3	46.1
Days for a new hire to become productive	55.4	70.1	47.3	55.4	56.8	50.6
Guaranteed annual training days / employee	8.33	9.06	7.93	8.34	8.47	7.88
Well-understood career path for all employees	3.17	3.06	3.23	3.16	3.18	3.26
Employee billable utilization	70.4%	68.5%	71.5%	70.7%	70.1%	68.7%

Source: Service Performance Insight, February 2017

Independents are more likely to refer their firm as a great place to work than their embedded counterparts. APac is more likely to recommend the firm as a great place to work than the Americas or EMEA. Management span of control declined year over year, moving from 11.52 employees per manager in 2015 to 10 in 2016. The average time to recruit, hire and ramp a new consultant is 117.6 days, on par with last year's 118 days. Obviously, reducing the time and cost of finding and ramping new employees has a major impact on growth and profitability. Interviews with this year's Best-of-the Best revealed innovative college hiring and ramping programs – with intense on-boarding programs of three months or more to ensure new consultants are successful and productive. The need for skill and leadership development has resulted in a big increase in the days of guaranteed training – moving from 3.8 days in 2008 to over 8.3 days on average in 2016. PS organizations of all types and sizes are investing in training to ensure their workforces remain engaged by enhancing their skills.

At the same time, PS organizations are finally starting to realize the importance of providing employee career opportunities – this has led to a slight improvement in the benchmark of "a well-understood career path," which has advanced from a score of 2.67 out of 5 (53%) in 2009 to 3.17 (63%) in 2016.

Table 87 shows the human capital alignment scores by organization size. Attrition tends to rise in direct proportion to organization size as employees feel less ownership and their work becomes more impersonal. This year organizations with 100 to 300 employees reported the highest voluntary and involuntary attrition. One of the reasons for this is that these size organizations have been the most sought-after as acquisition targets. As organizations grow in size, the percentage of employees who would recommend their company as a great place to work also declines. This important metric increased this year from 4.19 (83.8%) in 2015 to 4.28 (85.6%).

Table 87: Human Capital Alignment by Organization Size

Key Performance Indicator (KPI)	Under 10	10 - 30	31 – 100	101 - 300	301 - 700	Over 700
Employee annual attrition - voluntary	5.9%	6.5%	7.7%	10.8%	8.6%	8.5%
Employee annual attrition - involuntary	4.5%	5.4%	5.7%	6.4%	4.6%	5.0%
Recommend company to friends/family	4.26	4.44	4.34	4.12	4.48	3.95
Management to employee ratio	7.43	7.93	9.63	11.49	11.96	14.17
Days to recruit and hire for standard positions	63.4	64.8	58.8	59.0	67.2	69.3
Days for a new hire to become productive	57.0	58.9	50.7	51.5	60.0	65.5
Guaranteed annual training days / employee	7.57	8.52	8.24	7.01	9.66	10.74
Well-understood career path for all emp.	3.40	3.01	3.02	3.34	3.52	3.24
Employee billable utilization	64.1%	69.9%	69.6%	72.5%	72.0%	75.0%

Source: Service Performance Insight, February 2017

Employee to management ratios increase with the size of the organization due to economies of scale and investments in systems and tools which improve management visibility. The time to recruit new consultants is highest for the largest firms (69.3 days); they also reported the longest ramping time (65.5 days). This means the largest firms are taking 134.8 days to find, hire and ramp new employees. Smaller firms with 31 to 100 employees are far more agile, reporting it takes 109.5 days. All organizations need to focus on reducing their recruiting and ramping time and costs. Billable utilization increases with organization size as the largest organization reported the highest average billable utilization of 75%.

Tables 88 and 89 show key Human Capital Alignment metrics by market. Managed service providers reported the highest attrition as 22.4% while architects and engineers reported the lowest at 9.6%. Managed service providers had the largest management span of control (12.86) while marketing and advertising firms had the smallest (6.43). Embedded Software and Hardware PS reported the greatest investment in employee training (10.83 days) while Managed Services providers had the least (6.07). It takes the least amount of time to recruit and ramp new hires in research and development (84 days) and the longest time in embedded software (152.3 days). Billable utilization is highest for architects and accountants at 75.4% while embedded hardware and networking organization reported the lowest billable utilization at 62.5%.

Table 88: Human Capital Alignment by Vertical Service Market

Key Performance Indicator (KPI)	IT Consult.	Software	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.	Hard. & Netwrk.
Employee annual attrition - voluntary	8.6%	6.2%	9.5%	6.0%	7.0%	13.4%	4.8%
Employee annual attrition - involuntary	5.3%	4.5%	7.3%	3.6%	4.7%	9.0%	4.5%
Recommend company to friends/family	4.40	4.20	4.33	4.43	4.23	3.86	3.50
Management to employee ratio	10.77	10.94	7.68	8.82	9.49	12.86	9.17
Days to recruit and hire for std. positions	56.8	75.6	59.6	69.1	63.5	49.3	65.0
Days for a new hire to become productive	48.3	76.7	43.9	41.4	70.4	45.0	87.5
Guaranteed annual training days / emp.	8.41	10.83	6.59	8.33	7.44	6.07	10.83
Well-understood career path for all emp.	3.25	3.02	3.31	3.15	3.21	2.57	2.83
Employee billable utilization	71.2%	66.5%	70.9%	75.4%	68.8%	71.7%	62.5%

Source: Service Performance Insight, February 2017

Table 89: Human Capital Alignment by Vertical Service Market

Key Performance Indicator (KPI)	R&D	VAR	Acct.	Advert. (Marcom)	Staff.	Other PS
Employee annual attrition - voluntary	10.2%	5.8%	6.8%	13.3%	11.4%	8.7%
Employee annual attrition - involuntary	8.7%	6.3%	6.9%	7.2%	4.5%	6.9%
Recommend company to friends/family	4.40	4.15	4.00	4.00	4.25	4.24
Management to employee ratio	7.00	11.54	10.00	6.43	8.75	10.39
Days to recruit and hire for standard positions	51.0	65.8	60.0	72.9	52.5	58.4
Days for a new hire to become productive	33.0	57.7	67.5	49.3	45.0	54.5
Guaranteed annual training days / employee	8.00	7.50	8.33	9.29	7.50	7.57
Well-understood career path for all emp.	3.60	3.08	3.50	2.86	3.00	3.11
Employee billable utilization	65.0%	71.2%	75.0%	72.1%	71.3%	71.3%

Source: Service Performance Insight, February 2017

Workforce Age and Gender

- 1927 - 1945 - Silent Generation or Traditionalists
- 1946 - 1964 - Baby Boomers
- 1965 - 1983 - Gen X or the Busters
- 1984 - 2002 - Gen Y or the Millennials
- 2003 - Current Gen Z or the Digital Generation

Table 90: Workforce Age and Gender by Organization Type and Geographic Region

Workforce Age (years)	2016	ESO	PSO	Americas	EMEA	APac
Under 30	22.0%	20.8%	22.6%	21.4%	23.5%	23.6%
30 - 40	33.8%	36.9%	32.1%	33.0%	35.1%	37.8%
40 - 50	26.6%	26.7%	26.5%	26.5%	27.0%	25.5%
Over 50	17.7%	15.7%	18.8%	19.1%	14.4%	13.1%
Average Age (Years)	39.4	39.1	39.6	39.8	38.6	38.1
Percentage Male	63.7%	65.2%	63.0%	63.4%	64.5%	65.0%

Source: Service Performance Insight, February 2017

SPI Research asked questions about the age and gender of the global PS workforce. ***PS is a young man's game with 55.8% of the workforce under 40 while 63.7% of the workforce is male.*** This year the percentage of employees under 30 decreased from 24.4% to 22% while over 50 employees increased from 15.1% 17.7%. Embedded PSOs reported slightly younger workforces as they tend to provide better on-boarding programs than their independent counterparts and require the latest technical skills. The Americas has the oldest workforce with the most employees over 40 (45.6%). EMEA and APac are the most male-dominated with 65% male PS employees. The percentage of females has increased each year with the Americas leading the way in bringing women into the PS workforce with 36.6% females.

By organization size, the smallest organizations have the oldest employees as highly skilled consultants leave larger firms to start their own. Organizations with 300 to 700 employees have the most male-dominated workforces at 68.4%.

Table 91: Workforce Age and Gender by Organization Size

Role	Under 10	10 - 30	31 – 100	101 - 300	301 - 700	Over 700
Under 30	8.4%	21.7%	23.7%	22.3%	27.0%	27.2%
30 - 40	28.6%	33.7%	34.2%	35.8%	34.8%	32.8%
40 - 50	24.2%	27.4%	27.3%	27.1%	23.0%	25.4%
Over 50	38.8%	17.2%	14.9%	14.9%	15.2%	14.5%
Average Age (Years)	45.3	39.4	38.7	38.8	38.0	38.1
Percentage Male	63.9%	62.5%	64.2%	64.0%	68.4%	61.7%

Source: Service Performance Insight, February 2017

The largest firms employ the most employees under 30 at 27.2% of their workforces. They also employ the most females at 38.3%. Large firms are an excellent choice for young consultants as they provide ample training and career growth options but may also require excessive travel and work hours leading to burnout.

Table 92: Workforce Age and Gender by Vertical Service Market

Role	IT Consult.	Software	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.	Hard. & Network.
Under 30	23.3%	19.7%	14.9%	21.3%	26.3%	30.3%	12.7%
30 - 40	32.7%	35.4%	24.5%	35.6%	42.5%	33.1%	33.0%
40 - 50	29.3%	28.0%	25.8%	23.8%	21.8%	24.9%	30.5%
Over 50	14.7%	17.0%	34.9%	19.3%	9.4%	11.7%	23.8%
Average Age (Yrs)	38.9	39.7	43.9	39.6	36.7	37.1	42.1
Percentage Male	67.5%	68.3%	54.6%	68.4%	60.4%	72.1%	81.7%

Source: Service Performance Insight, February 2017

Table 92 shows staffing has the youngest workforce with 50% of employees under 30. Marketing and advertising is the only PS sub-vertical that is female-dominated with 60% of the workforce reported to be female. Marketing and advertising firms and SaaS PSOs had the fewest over age 50 employees resulting in the youngest workforces, averaging a little over 36 years. Hardware and networking is the most male-dominated sub-vertical with 81.7% male employees. Management consultancies employ the oldest workforce with an average workforce age of 43.9 years; this makes sense as grey-hair and experience are virtues when it comes to management consulting strategies, depth of vertical industry knowledge and operational improvement skills. Management consulting and staffing firms employ the most employees over 50 with 34.9% and 26.3% respectively. SaaS organizations favor younger workers, with a low percentage of employees over 50 (9.4%), but they do a slightly better job than enterprise software ESOs of hiring females (39.6%).

Table 93: Workforce Age and Gender by Vertical Service Market

Role	R&D	VAR	Acct.	Advert. (Marcom)	Staff.	Other PS
Under 30	30.4%	13.7%	22.5%	33.9%	50.0%	20.3%
30 - 40	30.6%	37.6%	35.5%	34.5%	22.5%	35.0%
40 - 50	21.4%	31.8%	29.2%	21.4%	1.3%	24.9%
Over 50	17.8%	16.9%	12.8%	10.3%	26.3%	19.8%
Average Age (Yrs)	38.2	40.6	38.6	36.1	36.0	39.9
Percentage Male	65.0%	63.1%	56.7%	40.0%	65.0%	55.5%

Source: Service Performance Insight, February 2017

Employee Annual Attrition

Employee attrition or turnover is defined as the average number of employees who left the company, either voluntarily or involuntarily, over the past year divided by the number of starting employees. Voluntary attrition, employees who leave that are not asked to leave, is one of the most important key performance indicators in the services sector as employees are the most valuable resource. Involuntary turnover typically refers to an employer decision to terminate the employee. Reasons for involuntary turnover include poor performance, excessive absenteeism or violation of a workplace policy that is considered a terminable offense. Attrition due to layoffs, reduction in force or job elimination is typically involuntary because the employment relationship ends based on the employer's circumstances, not the employee's decision to leave. Annual attrition in the professional services sector has been steadily climbing since the recession ended. With the economy continuing to pick up, and more new jobs available, average attrition has climbed to 13.5% in 2016 from 7.2% in 2012 coming out of the recession.

Table 94 shows the correlation between voluntary attrition and revenue growth and profit. This table demonstrates the negative consequences of high voluntary attrition rates. As attrition rises, most other aspects of performance suffer. The probability of on-time project delivery decreases while average project overruns increase. Remaining employees must pick up the pieces from exiting workers and must quickly come up to speed and reestablish client relationships. Clients are forced to back-track to reestablish previous decisions and vendor commitments.

Table 94: Impact – Annual Employee Attrition – Voluntary

Annual Employee Attrition	Survey Percent	% of employees billable	On-time projects	Annual Rev. Growth	EBITDA
None	14.5%	76.3%	84.9%	10.0%	19.1%
1% - 5%	29.3%	73.5%	76.2%	9.5%	17.5%
5% - 10%	25.5%	75.1%	78.0%	9.7%	12.6%
10% - 15%	17.8%	77.4%	79.0%	8.3%	11.4%
15% - 25%	8.5%	73.7%	73.7%	9.0%	9.4%
Over 25%	4.4%	79.4%	77.9%	0.2%	3.6%
Total/Avg.	**100.0%**	**75.3%**	**78.3%**	**9.0%**	**14.1%**

Source: Service Performance Insight, February 2017

The costs of high voluntary attrition permeate all aspects of the firm. Lower employee engagement influences the firm's ability to recruit top talent based on employee referrals. The very real cost to replace leaving employees shows up in 118 work days on average to find, recruit, hire and ramp new consultants. But this lost time is just the tip of the iceberg, as it does not measure lost productivity time for recruiters and managers nor the impact on the remaining workforce from taking over work after a valuable employee has left. SPI Research believes the real cost to replace a valuable consultant is more

Table 95: Impact – Annual Employee Attrition – Involuntary

Annual Employee Attrition	Survey Percent	Revenue / Billable Consult (k)	Annual Rev. Growth	Profit (EBITDA)
None	18.4%	$184	9.6%	21.1%
1% - 5%	44.0%	214	9.3%	12.7%
5% - 10%	22.8%	208	10.7%	12.9%
10% - 15%	9.6%	209	8.5%	14.1%
15% - 25%	2.5%	178	1.7%	7.8%
Over 25%	2.7%	238	-6.0%	5.6%
Total/Avg.	**100.0%**	**$206**	**9.0%**	**14.1%**

Source: Service Performance Insight, February 2017

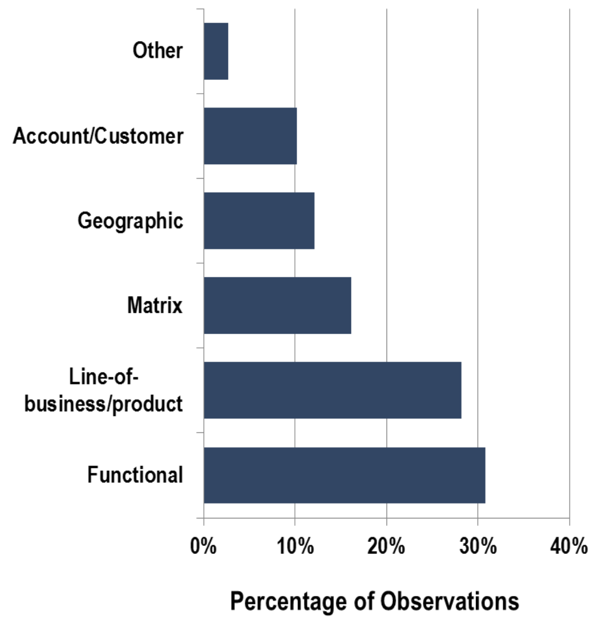
than $150,000 causing a big bottom-line profit impact and making it hard to increase revenue and margins when firms must backfill leaving employees.

Table 95 shows the correlation between involuntary attrition and revenue growth. Involuntary attrition or layoffs have a temporary positive impact on per consultant and per employee revenue yield as well as utilization because available work is performed by fewer employees. However, the long-term effects of involuntary attrition show up in lower top-line growth and long term poor employee engagement. Interestingly, voluntary attrition rises directly in response to involuntary attrition as non-impacted employees fear they will be next or become disenfranchised with their prospects for long-term career growth.

Organizational Structure

Figure 59 depicts organization structure with functional predominant. This means most PSOs have defined functions for sales and marketing, project delivery, finance and operations, service engineering, human resources, etc. The second most prevalent structure is line of business or product-oriented meaning groups are organized by vertical industries or products. Matrix-oriented structures are favored, particularly by larger organizations which may have double-line reporting by geography, vertical, competency or product. Increasingly large organizations are creating technical and vertical competency centers of experts who are deployed to support geographical or account-based teams with specialized expertise. Geographic organizations are prevalent for new, young organizations as they expand city to city, state to state and country to country. Only 10% of organizations are structured primarily by account although account-specific teams exist within most large organizations.

Figure 59: Primary Organizational Structure



Source: Service Performance Insight, February 2017

Why Employees Leave

Why do employees leave? Obviously, employees leave for a variety of reasons, but in many cases there is one primary catalyst which is the reason for moving on. Figure 60 shows the top reasons why employees leave professional services organizations. The number one rationale (40%) is "better opportunity" which translates to a better work environment, perhaps better compensation or more opportunity for advancement. "Other (17.7%)" moved into second place. "Other" covers a magnitude of issues – "work/life" balance or leaving the industry entirely. "Money" and "Lack of career advancement" were tied at (10%) as the third most prevalent reason employees leave. A younger, less traditional workforce requires challenging projects; exposure to hot new technologies and leading edge clients plus training, communication and teamwork to remain engaged. "Management dissatisfaction" and "Travel" are cited by 7.7%.

Travel is and will continue to be a major reason consultants quit, oftentimes for less-interesting, but more stable internal positions. Fortunately, remote service delivery tools and the ability to deliver more work virtually are having a beneficial effect on reducing travel time, cost and employee burnout. The Best-of-the-Best firms place a premium on their employees – finding ways to combine career development; challenging and exciting projects; with family/life/work balance and a measure of fun.

Figure 60: Why Employees Leave

Source: Service Performance Insight, February 2017

Recommend Company to Friends and Family

One of the most important employee engagement measurements is whether an employee would recommend their company "as a great place to work" to their friends and family. More than any other key performance measurement in the Human Capital Alignment pillar, recommending one's company as a great place to work is considered the litmus test of employee engagement.

Table 96 shows the impact of workplace satisfaction. The good news is 73.7% of the organizations in the survey would highly recommend their work environment. Great places to work are characterized by high employee engagement, a strong culture of achievement and confidence in the future.

Table 96: Impact – Recommend to Family and Friends

Score	% Surveys	Revenue Growth	Bid-to-Win ratio	Billable Utilization	On-time delivery
1 - No	6.3%	4.5%	3.50	65.0%	57.5%
2	13.7%	5.4%	3.67	71.3%	68.8%
3	6.3%	-2.9%	5.50	73.3%	85.0%
4	31.6%	8.8%	5.15	68.6%	79.8%
5 - Yes	42.1%	9.7%	5.80	71.9%	84.1%
Tot/Avg.	**100.0%**	**7.7%**	**5.14**	**70.4%**	**79.0%**

Source: Service Performance Insight, February 2017

Management-to-Employee Ratio

The management-to-employee ratio divides the number of employees by the number of people managers. Management-to-employee ratio (also referred to as "management span of control") is an important measurement of management effectiveness and is an indication of lean or excessive management overhead. The average management-to-employee ratio declined to 1 to 10 this year, down from 11.5 last year.

With a significant upturn in business, firms are starting to hire again and are finding the burden of recruiting and ramping new employees is putting tremendous pressure on already stretched managers. Few small and medium-size firms have effective management training programs so we are seeing a significant number of "battle-field" promotions without the requisite support structure. The Best-of-the-Best organizations are starting to add "team leader" positions to groom the next generation of leaders.

Table 97: Impact – Management-to-Employee Ratio

Management-to-Employee Ratio	Survey Percent	Billable Utilization	On-time delivery	EBITDA
1:5	32.3%	68.1%	78.7%	13.3%
1:10	46.1%	70.6%	78.2%	12.8%
1:15	13.2%	73.1%	79.0%	21.1%
1:20	6.7%	72.4%	76.2%	20.1%
Over 1:20	1.6%	78.3%	70.8%	18.4%
Total/Average	**100.0%**	**70.4%**	**78.2%**	**14.6%**

Source: Service Performance Insight, February 2017

SPI Research found Table 97 interesting because it shows the effect of management to employee ratios. It appears that a larger management span of control has a beneficial effect on financial performance but a negative impact on project delivery quality. A larger span of control reduces the cost of management overhead. It can be effective if employees clearly understand the work they are asked to perform and have a rich support structure of mentors, tools and knowledge to guide them so they don't have to rely solely on management for direction.

The table compares the management-to-employee ratio to other key performance indicators for the 416 PSOs in the survey. 78.4% of the organizations maintain a 1:10 or less management to employee ratio. As the ratio increases, so do many of the key financial metrics. The key to profitable growth is finding the right balance of respected managers to employees. Integrated business applications and strong communication practices along with standardized methods, tools and knowledge sharing all contribute to higher productivity with less reliance on management overhead.

Time to Recruit and Hire for Standard Positions

SPI Research considers the length of time to recruit and ramp new employees to be very important determinants of overall performance and sustainable growth. "Ramping" time is critical because it not only focuses on making employees productive faster, but also reduces the non-billable time and cost of other resources who support the hiring and on-boarding process.

Most firms do not track the full cost of recruiting and hiring, but it is substantial (in many cases over 50% of the first-year new hire base salary). This year the average cost of recruiting is 0.8% of total revenue.

The most mature firms create a dedicated recruiting function, armed with in-depth skill and personality profiles for targeted positions. Since all indicators point to a continuing talent shortage in PS – firms would be well-served to examine and improve their recruiting, on-boarding and training functions. Recruiting must be closely aligned with the sales pipeline and resource management plan.

Table 98 compares the time required to recruit for standard positions (such as consultants) to other key performance indicators. As it takes longer to recruit and hire, billable utilization suffers, as current employees spend more time helping with the process, which limits their billable time. However, profitability improves with longer recruiting times because current employees must take on extra work. Although expensive and time consuming, recruiting time does not appear to be a major determinant of bottom-line profitability as it is better to spend extra time ensuring new hires will fit in.

Table 98: Impact – Time to Recruit and Hire for Standard Positions

Time to recruit and hire for standard positions	Survey Percent	Billable Util.	On-time Projects	EBITDA
Under 1 month	7.0%	75.4%	83.6%	11.6%
30 - 60 days	46.1%	70.2%	78.2%	13.7%
60 - 90 days	35.2%	69.6%	78.2%	14.6%
90 - 120 days	7.9%	72.1%	76.6%	14.9%
Over 120 days	3.8%	66.9%	71.3%	21.4%
Total/Average	**100.0%**	**70.4%**	**78.2%**	**14.3%**

Source: Service Performance Insight, February 2017

Time for a New Hire to Become Productive

Table 99 shows 40.5% of the PSOs in the survey reported over 60 days for a new consultant to become productive. Well-structured on-boarding and mentoring programs are mandatory for organizations planning on significant growth. This year the average time for a new hire to become productive declined to 55.4 days down from 57.9 days in 2015 and 64.1 days in 2014. This 8.7-day improvement in ramping time is significant. At $150 per hour, faster on-boarding translates to a potential gain in revenue per consultant of $10,440 per year. This is one metric that has shown considerable improvement over the last five years as firms focus on improving their on-boarding programs.

Table 99: Impact – Time to Become Productive

Time to become productive	Survey Percent	Billable Util.	Rev. / Employee (k)	Staffing Time (days)
Under 1 month	29.4%	74.9%	$169	8.00
30 - 60 days	30.2%	70.0%	$159	8.89
60 - 90 days	24.3%	68.0%	$155	8.85
90 - 120 days	11.3%	66.2%	$163	9.15
Over 120 days	4.9%	68.1%	$188	10.00
Total/Average	**100.0%**	**70.4%**	**$163**	**8.70**

Source: Service Performance Insight, February 2017

Guaranteed Training Days per Employee per Year

The guaranteed number of training days per employee per year is the average number of training days budgeted each year per employee. Like the annual training budget, this indicator, while promised to employees, is not necessarily utilized, but does reflect the organization's commitment to employee development and shows the organization is investing in the future of its employees. Across the benchmark the average cost of training is 1.1% of total revenue.

Best-of-the-Best organizations mandate more than two weeks of training per year. Some firms provide over four weeks of training per year. Several Best-of-the-Best firms put new hires through intensive three-month scenario-based training programs where they work as a team to develop requirements, architect and implement real-world solutions. PSOs find investments in both technical and interpersonal skill building pays dividends. In this year's benchmark, higher numbers of guaranteed training days positively correlate with revenue growth and on-time project delivery (Table 100). Access to high quality training is a major attraction driver. Many firms report they bring together the entire consulting team twice a year for skill-building, reinforcing the company's direction and strengthening collaboration and team-building. Team meetings give road warriors a break and allow them to establish new friendships and partnerships while rejuvenating. Several of the Best-of-the-Best firms include significant others and spouses in their annual events to thank them for holding down the fort while their road-warrior partners delight clients.

Table 100: Impact – Guaranteed Training

Guaranteed Training Days per Employee per Year	Survey Percent	Revenue Growth	On-time delivery	Rev. / Billable Con. (k)
None	3.8%	6.0%	77.7%	$228
Under 5 days	24.7%	6.2%	75.1%	197
5 - 10 days	43.9%	9.4%	79.0%	211
10 - 15 days	16.0%	11.9%	79.4%	207
15 - 20 days	6.5%	9.4%	80.0%	197
Over 20 days	5.1%	12.9%	78.9%	191
Total/Average	**100.0%**	**9.0%**	**78.1%**	**$206**

Source: Service Performance Insight, February 2017

Well-Understood Career Path for all Employees

The survey asked if the organization provides a well understood employee career path, meaning as employees are hired and move within different positions, is there a planned next step for their career progression (Table 101). This KPI is important because it shows the firm's

Table 101: Impact – Well-understood Career Path

Well-understood Career Path	Survey Percent	On-time Delivery	Rev. / Emp. (k)	Meet Margin Target
1 – Not very well	6.5%	63.1%	$181	87.0%
2	21.8%	74.9%	$144	89.3%
3	29.6%	75.2%	$164	88.9%
4	33.7%	80.5%	$153	89.5%
5 – Very well	8.5%	82.6%	$189	90.4%
Total/Average	**100.0%**	**76.8%**	**$159**	**89.2%**

Source: Service Performance Insight, February 2017

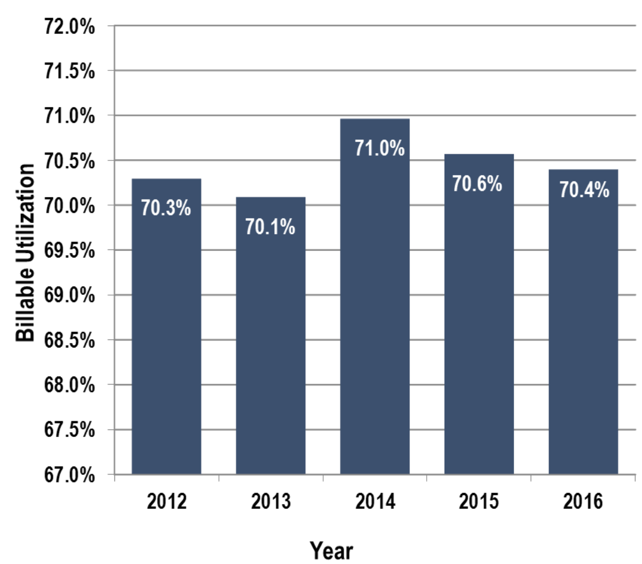
commitment to employee skill growth and career development. Even though this question is subjective, and answered by PS executives, who might have a bias, the results show how important career development is. It shows employees with a well-defined career path are much more engaged with their work, delivering more on-time projects, more revenue per employee and more likely to achieve margin targets.

The table highlights the important role management plays in helping employees plan their careers while ensuring they have both the tools and opportunity for career growth. Numerous studies have shown that employees become increasingly productive with longer tenure so keeping them engaged is an investment worth making.

Consultant Billable Utilization

SPI Research defines employee utilization on a 2,000 hour per year basis. Employee utilization is calculated by dividing the total annual billable hours by 2,000. This key performance indicator is central to organizational profitability. Utilization is consistently the most measured key performance indicator but must be examined in conjunction with overall revenue and profit per person along with leading indicators like backlog and size of the sales pipeline to become truly meaningful. Utilization is a major indicator of opportunity and workload balance. It provides a signal to expand or contract the workforce.

Figure 61: Billable Utilization: 2012 – 2016



Source: Service Performance Insight, February 2017

To improve margins, PS executives must continually focus on increasing employee billable utilization, as well as increasing the percentage of billable employees. The primary gain from increased utilization is a significant increase in revenue per employee.

Table 102 shows the actual (not theoretical) benefits this year's firms experienced from increasing employee utilization. This year the results favored organizations who reported the highest billable utilization at greater than 90%. The highest utilization produced the best net margin but resulted in the highest levels of attrition. Running a growing PS organization at greater than 90% utilization can produce strong profits but may not be sustainable over the long run as employees burnout and leave. At the other end of the spectrum, organizations who reported less than 50% utilization reported the worst metrics in all categories except attrition. The key to success is to have the right balance of meaningful work with enough time set aside for skill and client relationship building.

Although PS firms would like to abandon the billable utilization metric (and all the accompanying time tracking it entails), unfortunately there is no other metric which provides as good a picture of workforce productivity. Perhaps as more and more firms shift to fixed price work the focus on billable utilization will decline but if this is the case firms should ratchet up their focus on project accounting and budget to actual performance. But here again, how can budget to actual performance be measured without tracking work hours?

Table 102: Impact – Billable Utilization

Billable Utilization	Survey Percent	Revenue Growth	On-time delivery	Employee Attrition	Revenue / billable cons. (k)	Revenue / employee	Client Ref.	EBITDA
Under 50%	3.8%	5.7%	74.6%	9.3%	$146	$105	53.1%	4.3%
50% - 60%	12.0%	5.6%	74.4%	11.5%	197	$147	67.8%	13.7%
60% - 70%	29.0%	8.8%	77.8%	13.4%	210	$169	68.7%	15.6%
70% - 80%	37.7%	10.8%	78.8%	14.1%	215	$168	74.6%	13.8%
80% - 90%	13.9%	9.3%	80.7%	14.4%	213	$179	75.2%	13.8%
Over 90%	3.6%	10.0%	82.1%	17.7%	185	$163	82.1%	21.3%
Total/Average	**100.0%**	**9.2%**	**78.2%**	**13.6%**	**$207**	**$165**	**71.6%**	**14.2%**

Source: Service Performance Insight, February 2017

Billable Utilization from the 2015 PS Global Pricing Report

Based on the 2015 PS Global Pricing report, Table 103 provides a snapshot comparison by role of the 2015 PS Pricing survey compared to the 2011 survey. The headline reads "lower bill rates" are offset by "significantly higher billable utilization targets" resulting in "significant increases in consulting revenue yields and profits". What this means is that the consulting industry is demanding more from their workforces to offset rate erosion. These productivity advances are a direct result of more virtual (off-site) consulting delivery, stronger consulting demand (more work) and productivity tools (less time spent on non-billable activities). The question which must be asked is "can the consulting industry continue to ratchet up consultant productivity and billability, or are we near a breaking point?"

Table 103: Target Billable Hours and Rates Comparison 2011-2015 All PS Markets and Geographies

Level	2011			2015			Target Revenue Yield Delta (k)
	Target Annual Billable Hrs.	Realized Hourly Bill rate	Target Revenue Yield PP (k)	Target Annual Billable Hrs.	Realized Hourly Bill rate	Target Revenue Yield PP (k)	
VP / Executive Management	743	$265	$197	706	$235	$166	($31)
Director	771	217	167	785	213	167	0
Manager	852	178	152	879	176	155	3
Program Manager	1,211	167	202	1,368	174	238	36
Senior Project Manager	1,289	166	214	1,472	177	260	46
Project Manager	1,272	153	195	1,505	164	246	51

Level	2011			2015			Target Revenue Yield Delta (k)
	Target Annual Billable Hrs.	Realized Hourly Bill rate	Target Revenue Yield PP (k)	Target Annual Billable Hrs.	Realized Hourly Bill rate	Target Revenue Yield PP (k)	
Principal Business Consult.	1,113	217	242	1,450	196	284	42
Sr. Business Consultant	1,298	193	251	1,519	169	256	4
Business Consultant	1,330	152	202	1,512	149	225	23
Solution Architect	1,316	185	243	1,391	178	248	5
Senior Technical Consultant	1,374	166	228	1,563	168	263	35
Technical Consultant	1,401	151	212	1,566	146	228	16
Non-weighted average	**1,249**	**$177**	**$214**	**1,353**	**$175**	**$237**	**$23**

Source: Service Performance Insight, 2015 PS Global Pricing report

Key findings from comparing the 2011 to 2015 PS Pricing report:

- Δ Target annual billable hours have increased dramatically for all job categories except Executive Management. Target annual hours across all roles and geographies have increased from 1,249 in 2011 to 1,353 hours in 2015! The average PS consultant is targeted to bill almost 200 more hours per year! Most consulting job roles are now targeted at 75% billable utilization or higher.
- Δ The only job category which has not experienced a decline in realized bill rates is the Project Management job category. At the same time, project managers are being asked to bill more hours. The combined impact of slightly higher rates and significantly higher utilization targets manifests in the greatest increase in per capita target revenue. A contributing factor to these increases is that the project management category has experienced the most significant decline in employee numbers as a percent of the overall consulting workforce. This means the remaining project managers are being asked to do more and scarcity has led to higher rates.
- Δ The Business Consulting job category has experienced the steepest decline in realized bill rates at the same time this job category has experienced a sharp increase in billable utilization targets. The increase in billability has more than offset the decrease in rates, making the business consulting job category the richest revenue producers in the study.
- Δ The Technical Consulting job category has experienced a moderate decline in realized rates and a moderate increase in annual billable targets. The net result manifests in moderately increased revenue targets.
- Δ In the technical consulting job category, only senior technical consultants have experienced a slight increase in realized bill rates from $166 to $168 per hour. However, their billable utilization targets have soared from 1,374 hours in 2011 to 1,563 hours in 2015. The net result is they are targeted to generated $263K in annual revenue, up from $228K in 2011!

Table 104 shows a comparison of target billable hours by role for the major geographies represented in the 2015 PS Pricing study. India clearly expects the most from its consultants with annual target hours of 92% for its program managers; 82.5% for its senior business consultants and 86% for its technical consultants. EMEA targets the fewest billable hours.

Table 104: Target Billable Hours by Geography

Role	Level	Target Billable Hours				Target Billable Utilization			
		North Amer.	West. Europe	ANZ	India	North Amer.	West. Europe	ANZ	India
Mgmt.	VP / Executive Mgmt.	658	407	460	758	32.9%	20.3%	23.0%	37.9%
	Director	827	636	679	975	41.4%	31.8%	34.0%	48.8%
	Manager	979	883	700	672	49.0%	44.2%	35.0%	33.6%
Project Mgmt.	Program Manager	1,403	1,439	1,099	1,841	70.2%	72.0%	55.0%	92.1%
	Senior Project Manager	1,500	1,379	1,384	1,700	75.0%	69.0%	69.2%	85.0%
	Project Manager	1,525	1,469	1,466	1,688	76.3%	73.5%	73.3%	84.4%
Business Consulting	Principal Business Consult.	1,476	1,225	1,317	1,424	73.8%	61.3%	65.9%	71.2%
	Sr. Business Consultant	1,515	1,456	1,487	1,650	75.7%	72.8%	74.3%	82.5%
	Business Consultant	1,548	1,475	1,221	1,516	77.4%	73.7%	61.1%	75.8%
Technical Consulting	Solution Architect	1,421	1,351	1,127	1,680	71.0%	67.5%	56.3%	84.0%
	Senior Technical Consult.	1,586	1,480	1,530	1,775	79.3%	74.0%	76.5%	88.8%
	Technical Consultant	1,605	1,431	1,499	1,713	80.2%	71.6%	75.0%	85.6%

Source: Service Performance Insight [2015 PS Global Pricing Report]

Annual Hours

Always one of the most anticipated metrics from the annual PS Maturity™ benchmark survey is the breakdown of work hours. Most organizations put a lot of focus on consultant time spent on both billable and non-billable tasks. Embedded organizations reported a decrease in billable hours from 1,350 to 1,348; independents also reported a decrease in billable hours from 1,481 to 1,440.

Across all job titles, billable utilization is higher for independents than embedded service organizations as embedded organizations must contend with more non-billable work to support product sales or to fix product or relationship issues. The average ESO consultant spends 138 hours (3.5 weeks) on non-billable business development activities while the independents spend somewhat less at 123 hours.

Table 105: Annual Hour Comparison by Organization Type

Annual Hours	Survey			ESO			PSO		
	2015	2016	Change	2015	2016	Change	2015	2016	Change
Vacation/personal/holiday	169	182	7.8%	157	176	11.9%	175	186	6.1%
Education/training	77	84	9.3%	94	87	-7.1%	69	82	19.4%
Administrative	171	150	-12.4%	187	159	-15.2%	164	145	-11.6%
Non-bill. Bus. Dev./Sales	N/A	128	NA	N/A	138	NA	N/A	123	NA
Non-billable project hours	213	130	-38.9%	269	171	-36.3%	186	108	-42.1%
Total Billable Hours	1,439	1,407	-2.2%	1,350	1,348	-0.2%	1,481	1,440	-2.8%

▪ Billable hours on-site	803	760	-5.4%	622	632	1.6%	887	829	-6.5%
▪ Billable hours off-site	637	647	1.6%	729	715	-1.9%	594	611	2.8%
Total Hours	**2,069**	**2,082**	**0.6%**	**2,058**	**2,079**	**1.0%**	**2,075**	**2,083**	**0.4%**

Source: Service Performance Insight, February 2017

Table 105 provides a year-over-year comparison of annual work hours by comparing embedded to independent organizations. The trend in total annual hours this year was more work hours with fewer hours spent on administration and non-billable project hours however these improvements were offset by increases in vacations, education and off-site billable hours. For the first time this year we asked survey respondents to provide the number of average hours spent in non-billable business development activities. Together with more training hours, non-billable sales activities pushed the average work hours from 2,069 to 2,082. Both ESOs and independents increased non-billable vacation time, reporting they now provide almost 5 weeks of vacation time for their consultants. They also now provide over two weeks of non-billable training time but these perks have been paid for by significant reductions in administrative time, reducing administration time from 4.3 weeks to 3.8 weeks. ***Average billable utilization for embedded PSOs was 66.9% in 2016 compared to 74% for independents. The average embedded consultant billed 1,351 hours compared to independents that billed 1,481, that is 92 more billable hours!*** Independents reported an average decrease of 41 billable hours per consultant (1,440) compared to 1,481 in 2015 and 1,488 in 2014 and 1,457 in 2013.

Table 106 shows employees in Europe were paid for more hours than either American or Asian consultants primarily because they took 206 vacation hours compared to 175 for Americans and 183 in Asia. This year Asia-Pacific consultants billed the least hours (1,378) while Americans billed the most (1,417). In 2016 APAC firms invested the most in education and training followed by EMEA. Workaholic Americans spent the least amount of time on vacations and the most on administration. Excessive administrative time usually results from not having enough billable work combined with poor systems and processes. For the first time in ten years of surveying, EMEA firms reported the biggest increase in both billable time and total work hours. Reported work hours in EMEA were higher than the other two geographies although European consultants still bill fewer hours than those in the Americas.

Table 106: Annual Hour Comparison by Region

Annual Hours	Americas			EMEA			APac		
	2015	2016	Change	2015	2016	Change	2015	2016	Change
Vacation/personal/holiday	150	175	16.8%	219	206	-6.0%	176	183	4.0%
Education/training	74	83	12.2%	80	84	5.0%	87	94	8.5%
Administrative	181	156	-13.7%	136	126	-7.2%	206	152	-26.0%
Non-bill. Bus. Dev./Sales	N/A	123	NA	N/A	143	NA	N/A	142	NA
Non-billable project hours	219	128	-41.7%	198	144	-27.4%	211	115	-45.3%
Total Billable Hours	1,450	1,417	-2.3%	1,415	1,386	-2.1%	1,427	1,378	-3.4%
▪ Billable hours on-site	740	743	0.4%	922	861	-6.6%	982	648	-34.1%
▪ Billable hours off-site	710	674	-5.1%	493	525	6.5%	445	731	64.2%

Total Hours	**2,073**	**2,082**	**0.4%**	**2,048**	**2,089**	**2.0%**	**2,108**	**2,065**	**-2.0%**

Source: Service Performance Insight, February 2017

Table 107 shows firms become more productive as they grow from small to large. Both total work hours and billable hours per year increase as firms grow. This year the smallest organizations worked the least total hours and billed the least hours – averaging 200 fewer billable hours than the largest organizations.

Table 107: Annual Hour Comparison by Organization Size (< 100 employees)

Annual Hours	Under 10			10 - 30			31 - 100		
	2015	2016	Change	2015	2016	Change	2015	2016	Change
Vacation/personal/holiday	158	182	15.0%	175	173	-1.3%	177	174	-1.8%
Education/training	51	110	115.8%	57	91	59.7%	87	76	-13.2%
Administrative	190	139	-26.9%	152	161	5.7%	177	142	-20.0%
Non-bill. Bus. Dev./Sales	N/A	196	NA	N/A	149	NA	N/A	116	NA
Non-billable project hours	261	185	-29.0%	262	132	-49.5%	213	130	-38.9%
Total Billable Hours	1,361	1,260	-7.4%	1,415	1,370	-3.2%	1,430	1,443	0.9%
▪ Billable hours on-site	726	661	-8.9%	786	669	-14.9%	769	810	5.3%
▪ Billable hours off-site	634	599	-5.5%	629	701	11.5%	661	633	-4.2%
Total Hours	**2,022**	**2,073**	**2.5%**	**2,060**	**2,076**	**0.8%**	**2,083**	**2,080**	**-0.2%**

Source: Service Performance Insight, February 2017

Table 108 shows the smallest organizations experienced a decrease in billable hours this year while the mid-size and larger organizations increased their billable hours – making them generally more productive than their smaller counterparts.

Table 108: Annual Hour Comparison by Organization Size (> 100 employees)

Annual Hours	101 - 300			301 – 700			Over 700		
	2015	2016	Change	2015	2016	Change	2015	2016	Change
Vacation/personal/holiday	158	223	41.4%	175	146	-16.5%	177	175	-1.0%
Education/training	51	73	43.7%	57	88	55.3%	87	91	5.1%
Administrative	190	142	-25.4%	152	187	22.9%	177	158	-11.0%
Non-bill. Bus. Dev./Sales	N/A	106	NA	N/A	105	NA	N/A	113	NA
Non-billable project hours	261	106	-59.4%	262	160	-39.0%	213	101	-52.6%
Total Billable Hours	1,361	1,428	4.9%	1,415	1,429	1.0%	1,430	1,460	2.1%
▪ Billable hours on-site	726	766	5.6%	786	818	4.1%	769	856	11.3%
▪ Billable hours off-site	634	662	4.4%	629	611	-2.9%	661	604	-8.6%
Total Hours	**2,022**	**2,079**	**2.8%**	**2,060**	**2,116**	**2.7%**	**2,083**	**2,098**	**0.7%**

Source: Service Performance Insight, February 2017

Organizations with 100 to 300 consultants reported a big increase in vacation and personal time which was offset by a decrease in administrative and non-billable project hours. If these improvements hold, these organizations have found a way for their employees to enjoy more time off without a corresponding decline in billability. This chart is a good reminder of the economies of scale that larger people-based organizations can achieve if they are appropriately sized and skilled for the amount of work available.

Table 109: Annual Hour Comparison by Embedded Service Organization Type

Annual Hours	Software PS			SaaS PS			Hardware/Network PS		
	2015	2016	Change	2015	2016	Change	2015	2016	Change
Vacation/personal/holiday	160	187	16.7%	155	179	15.5%	146	171	17.3%
Education/training	91	84	-7.7%	90	81	-9.6%	150	170	13.1%
Administrative	182	175	-3.9%	175	163	-6.7%	346	161	-53.4%
Non-bill. Bus. Dev./Sales	N/A	131	NA	N/A	142	NA	N/A	82	NA
Non-billable project hours	290	162	-44.1%	299	192	-35.6%	127	237	86.8%
Total Billable Hours	1,336	1,339	0.2%	1,351	1,324	-2.0%	1,320	1,271	-3.7%
▪ Billable hours on-site	638	659	3.2%	323	410	26.9%	1,013	841	-17.0%
▪ Billable hours off-site	698	681	-2.5%	1,028	914	-11.1%	308	430	39.7%
Total Hours	**2,058**	**2,078**	**1.0%**	**2,069**	**2,082**	**0.6%**	**2,089**	**2,092**	**0.1%**

Source: Service Performance Insight, February 2017

For embedded service organizations, hardware and SaaS PSOs reported fewer billable hours in 2016 with hardware PSOs reporting the largest decrease (-3.7%).

As shown in Tables 110 -112, staffing billed the most hours (1,721) while Advertising billed the least (1,368). Staffing spends the most time working on-site (1,207 hours) while SaaS PS spends the least (410). For independents, most segments experienced an increase in billable hours except IT and Management Consultancies reported a decrease due to fewer billable on-site hours.

Table 110: Annual Hour Comparison by PS Market (IT & Management Consulting, Staffing)

Annual Hours	IT Consulting			Management Consulting			Staffing		
	2015	2016	Change	2015	2016	Change	2015	2016	Change
Vacation/personal/holiday	166	180	8.7%	176	172	-2.3%	214	135	-36.9%
Education/training	69	91	31.6%	69	83	20.1%	116	68	-41.7%
Administrative	162	128	-21.0%	146	158	8.5%	202	120	-40.8%
Non-bill. Bus. Dev./Sales	N/A	131	NA	N/A	148	NA	N/A	26	NA
Non-billable project hours	170	99	-41.8%	216	143	-33.9%	94	11	-88.8%
Total Billable Hours	1,521	1,448	-4.8%	1,475	1,382	-6.3%	1,457	1,721	18.1%
▪ Billable hours on-site	860	790	-8.1%	993	820	-17.5%	831	1,207	45.2%

▪ Billable hours off-site	662	657	-0.7%	481	563	17.0%	626	515	-17.8%
Total Hours	**2,088**	**2,077**	**-0.5%**	**2,082**	**2,087**	**0.2%**	**2,083**	**2,080**	**-0.1%**

Source: Service Performance Insight, February 2017

Table 110 shows IT consultancies average 1,448 billable hours per consultant compared to 1,382 hours for management consultants. Unfortunately, their high levels of billability are more than offset by their low rate structure. According to the 2015 Global PS Pricing report the average management consulting rate is $197/hour while the average IT Consulting rate is only $163/hour for billable consultants.

Table 111: Annual Hour Comparison by PS Market (Advertising, Arch./Engr., Other PS)

Annual Hours	Advertising			Architecture/Engineering			Other PS		
	2015	2016	Change	2015	2016	Change	2015	2016	Change
Vacation/personal/holiday	141	156	10.4%	175	182	4.0%	227	227	0.2%
Education/training	101	102	1.4%	44	57	30.7%	60	78	30.2%
Administrative	202	202	0.2%	138	139	1.0%	293	156	-46.7%
Non-bill. Bus. Dev./Sales	N/A	165	NA	N/A	73	NA	N/A	134	NA
Non-billable project hours	385	106	-72.4%	155	101	-35.0%	270	130	-52.0%
Total Billable Hours	1,192	1,368	14.8%	1,514	1,522	0.5%	1,132	1,366	20.7%
▪ Billable hours on-site	303	832	174.5%	858	875	2.0%	680	916	34.7%
▪ Billable hours off-site	889	537	-39.7%	656	647	-1.4%	452	450	-0.5%
Total Hours	**2,022**	**2,100**	**3.8%**	**2,025**	**2,075**	**2.5%**	**1,982**	**2,092**	**5.5%**

Source: Service Performance Insight, February 2017

Table 112: Annual Hour Comparison by PS Market

Annual Hours	Accounting			Research & Development			Value-added Reseller		
	2015	2016	Change	2015	2016	Change	2015	2016	Change
Vacation/personal/holiday	198	135	-31.6%	207	159	-23.1%	147	173	17.7%
Education/training	55	106	92.0%	130	60	-54.2%	87	74	-15.4%
Administrative	126	349	177.0%	221	172	-22.0%	148	106	-28.0%
Non-bill. Bus. Dev./Sales	N/A	109	NA	N/A	131	NA	N/A	133	NA
Non-billable project hours	294	109	-62.8%	110	73	-33.8%	242	124	-48.7%
Total Billable Hours	1,373	1,457	6.1%	1,560	1,409	-9.7%	1,385	1,447	4.5%
▪ Billable hours on-site	1,218	851	-30.2%	1,333	1,095	-17.8%	648	580	-10.5%
▪ Billable hours off-site	154	606	293.6%	228	314	37.5%	738	867	17.5%
Total Hours	**2,046**	**2,265**	**10.7%**	**2,228**	**2,004**	**-10.1%**	**2,008**	**2,058**	**2.5%**

Source: Service Performance Insight, February 2017

Employee Location

A fascinating topic is the composition and location of employees in the new world of project-based work. This year SPI Research saw a decrease in the percentage of the overall PS workforce working from headquarters and offshore while the percentage of workers based in branch offices and home offices increased. Not surprisingly with protectionism growing in the Americas and EMEA, fewer workers were located in offshore locations. Almost a third of American PS workers work from home while only 10.8% of APac workers do. EMEA reported the greatest increase in home-based workers growing from 11.6% in 2015 to 19.9% in 2016. EMEA has the largest concentration of employees working from a headquarters office (55.2%). Embedded increased their reliance on offshore workers from 4.8% to 6% while embedded PSOs decreased their offshore workers from 5% to 6.2%. Many PS firms are reducing their usage of offshore workers as labor costs and turnover have skyrocketed in favored offshore destinations like India. Offshore quality and security concerns are also starting to offset labor cost advantages.

Table 113: Workforce Location by Organization Type and Geographic Region

Employee Location	2015	2016	ESO	PSO	Americas	EMEA	APac
Headquarters	53.1%	46.1%	36.8%	51.2%	43.2%	55.2%	51.9%
Branch offices	19.5%	21.5%	23.2%	20.6%	20.8%	19.9%	32.9%
Home based	21.6%	27.5%	33.7%	24.1%	31.2%	19.9%	10.8%
2016 Offshore / Nearshore	5.7%	4.9%	6.2%	4.1%	4.9%	4.9%	4.4%
2015 Offshore / Nearshore	5.6%	5.7%	5.0%	6.0%	5.6%	6.3%	4.2%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Service Performance Insight, February 2017

Table 114 shows the use of offshore workers decreased this year for all but the smallest organization. The decline in offshore workers was most dramatic for organizations from 300 to 700 employees who cut their offshore population by almost 75%. Organizations of all sizes are becoming increasingly comfortable with home based workers with almost 1/3 of workers working from home.

Table 114: Workforce Location by Organization Size

Employee Location	Under 10	10 - 30	31 – 100	101 - 300	301 - 700	Over 700
Headquarters	52.2%	51.2%	51.6%	41.4%	28.9%	24.2%
Branch offices	5.4%	14.4%	19.2%	27.0%	43.6%	42.4%
Home based	36.6%	31.4%	25.5%	25.2%	24.9%	22.1%
2016 Offshore / Nearshore	5.8%	3.0%	3.8%	6.4%	2.6%	11.3%
2015 Offshore / Nearshore	2.7%	5.0%	3.5%	8.3%	9.9%	13.9%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Service Performance Insight, February 2017

By vertical market, software, SaaS and management consultancies have the largest percentage of home-based workers. Advertising uses the most offshore workers while architects, VARS and Staffing use none. Many firms are opening onshore managed service, hosting and development centers in low cost areas like the Midwest and the South with excellent results in terms of costs and quality. Architect and engineering firms still favor centralized, headquarters based workstyles while hardware and networking providers invest in branch offices.

Table 115: Workforce Location by Service Market Vertical

Employee Location	IT Consult.	Software	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.	Hard. & Netwrk.
Headquarters	49.3%	31.0%	46.0%	63.3%	41.0%	30.5%	14.0%
Branch offices	19.3%	24.7%	16.5%	31.1%	16.2%	40.2%	48.7%
Home based	26.1%	38.9%	34.1%	4.9%	34.0%	23.5%	33.6%
Off /Nearshore	5.3%	5.3%	3.3%	0.7%	8.8%	5.7%	3.7%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Service Performance Insight, February 2017

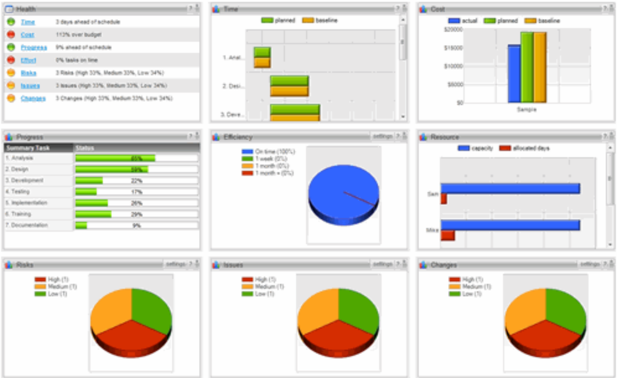
Table 116 shows Research and Development and Accountancies reported the use of no offshore workers. Almost one-third of VAR and Marketing and Advertising employees work from home.

Table 116: Workforce Location by Service Market Vertical

Employee Location	R&D	VAR	Acct.	Advert. (Marcom)	Staff.	Other PS
Headquarters	64.6%	56.3%	47.4%	59.4%	71.3%	44.1%
Branch offices	6.8%	23.2%	46.6%	11.7%	5.0%	21.0%
Home based	23.8%	20.3%	6.0%	17.8%	23.8%	29.9%
Off /Nearshore	4.9%	0.2%	0.0%	11.0%	0.0%	5.1%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Service Performance Insight, February 2017

11. Service Execution Pillar



The Service Execution Pillar measures the quality, efficiency and repeatability of service delivery. It focuses on the core activities for planning, scheduling and delivery of service engagements. Regardless of the maturity of every other area of the PSO it will not succeed unless it can successfully and profitably deliver services, with an emphasis on quality, timeliness and customer value.

The Service Execution pillar is where money is made in professional services. Work must be scoped, bid, sold, delivered and invoiced in order to maximize project margin. The alignment of sales, service and finance is critical for success. All project-related information (time, expense, project details and knowledge) must be captured in order to be invoiced and to improve the next service delivered.

In an increasingly competitive consulting marketplace, success most often comes down to operational excellence – with visibility and management controls in place to ensure effective resource and project management. Done right, gross project margins of more than 60% are possible. Done wrong, project yields can drop to single digits, or go negative.

Table 117 highlights the maturity levels in the Service Execution pillar, as the PSO moves from basic reactive "all hands-on deck" project delivery to greater efficiency, repeatability and higher quality service execution.

Table 117: Service Execution Performance Pillar Mapped Against Service Maturity

	Level 1 Initiated	Level 2 Piloted	Level 3 Deployed	Level 4 Institutionalized	Level 5 Optimized
Service Execution	No scheduling. Reactive. Ad hoc. Heroic. Scheduling by spreadsheet. No consistent project delivery methods. No project quality controls or knowledge management.	Skeleton methodology in place. Centralized resource mgmt. Initiating project mgmt. and technical skills. Starting to measure project satisfaction and harvest knowledge.	PSA deployed for resource and project management. Collaborative portal. Earned Value Analysis. Project dashboard. Global Project Management Office, project quality reviews and measurements. Effective change management.	Integrated project and resource management. Effective scheduling. Using portfolio management. Global PMO. Global project dashboard. Global Knowledge Management. Global resource management.	Integrated solutions. Continual checks and balances to assure superior utilization and bill rates. Complete visibility to global project quality. Multi-disciplinary resource management.

Source: Service Performance Insight, February 2017

Strategic Resource Management for PSOs

Given market growth and an increasing talent shortage, effective resource management has become critical as the supply of qualified consultants is outstripped by the demand for services. Improving and maintaining high levels of billable utilization is a constant challenge requiring a delicate balance between supply and demand.

Resource management business processes

One of the most important elements of service execution is resource management and scheduling. Service Performance Insight has developed a "Resource Management Maturity Model" in Table 118:

- ∆ ***Sales Pipeline:*** Integration of the sales project pipeline with resource requirements and availability.
- ∆ ***Resource Management:*** The process for scheduling and deploying resources. Resource management can be centralized or decentralized.
- ∆ ***Functional Interlock:*** Alignment between the sales project pipeline, the resource management process, the recruiting process, the human resource onboarding and skill development processes and the resources themselves.
- ∆ ***Human Resource Processes:*** Recruiting, onboarding, ramping, and resource skill development.
- ∆ ***Resources:*** The consultants and contractors available to deliver projects and engagements.

Table 118: The Resource Management Maturity Model

	Level 1 Initiated	Level 2 Piloted	Level 3 Deployed	Level 4 Institutionalized	Level 5 Optimized
Service Execution	No scheduling. Reactive. Ad hoc. Heroic. Scheduling by spreadsheet. No consistent project delivery methods. No project quality controls or knowledge management.	Skeleton methodology in place. Beginning to centralize resource mgmt. Initiating project mgmt. discipline. Starting to measure project satisfaction and harvest knowledge.	PSA deployed for resource and project management. Collaborative portal. Earned value analysis. Project dashboard. Global Project Management Office, project quality reviews and measurements. Effective change management.	Integrated project and resource management. Effective scheduling. Using portfolio management. Global PMO. Global project dashboard. Global knowledge management. Global resource management.	Integrated solutions. Continual checks and balances to ensure superior utilization and bill rates. Complete visibility to global project quality. Multi-disciplinary resource management.
Sales Pipeline	Sales pipeline and forecast is disconnected from scheduling. Reactive or no sales resource demand forecast or plan.	Standalone CRM and resource forecast. Limited visibility into resource schedule or available skills.	CRM and resource management applications deployed. Sales starts forecasting future resource and skill requirements by engagement.	Fully integrated CRM and Resource management. High levels of pipeline forecast accuracy. Ability to dynamically and automatically map the sales forecast to resource requirements.	Optimized and integrated CRM and resource management. Sales visibility into resource availability and skills. Strong analytic and query tools.
Functional Interlock	Reactive resource brokering and bartering. Sales picks and commits resource "favorites." Time-consuming manual scheduling.	Weekly resource brokering meetings to assign resources and discuss future projects and resources requirements.	Centralized resource management function handles the majority of resource requests and schedules. At least manual integration between CRM and PSA.	Centralized resource management function handles resource requests and schedules. Integrated with HR for recruiting and resource skill development.	Completely optimized and seamless sales -> resource management -> recruiting -> skill and career development processes.

	Level 1 Initiated	Level 2 Piloted	Level 3 Deployed	Level 4 Institutionalized	Level 5 Optimized
Consulting Resources	Reactive and ad hoc scheduling. No visibility to future projects. No career or skill plan. Broad job requirements but limited training or support. Firefighting leads to consultant burnout.	Project initiation and closeout processes. Some visibility into future projects. Some ability to plan and express project preferences. Training support to improve skills.	Central PMO and resource management provide methodology guidance and oversight. Ability to input skill and role preferences. Visibility to upcoming projects. Reasonable notice given for schedule changes. Integrated career & skill development plans.	Fully integrated systems and tools to support career and skill growth. Self-service employee portal allows employees to continually maintain and update skills and preferences. Visibility to preferred assignments. Career planning and training. Predictable schedule.	Global, on-site, off-site roles. Ability to view and bid on preferred assignments. Employees have input to and control over their career and skill progression. Specialized horizontal, vertical and technical roles. Career growth. High employee satisfaction.

Source: Service Performance Insight, February 2017

Which resource management strategy is best?

To improve utilization, PSOs must improve resource management effectiveness. As the following chart shows, there are pluses and minuses to different resource management strategies. Green shading indicates "Best in Class" and red shading indicates "Worst in class" based on responses from 416 firms. This year Center of Excellence resource management delivered the best results while "By Account" appears to deliver the worst results, particularly if resources are hoarded by account, prohibiting redeployment to more lucrative clients and services.

Table 119: Impact – Resource Management Strategy

Resource Mgmt. Strategy	Survey Percent.	Annual Revenue Growth	Revenue Per Project (k)	Employee Billable Utilization	On-time Delivery	EBITDA
Centrally Managed	53.3%	9.5%	$152	70.6%	78.9%	14.4%
Locally Managed	24.5%	9.9%	$148	69.7%	77.1%	14.2%
By Horizontal Skill Set	6.9%	11.5%	$210	68.6%	78.0%	12.0%
Center of Excellence	6.0%	8.3%	$240	76.6%	83.1%	15.7%
By Account	5.5%	2.2%	$134	67.5%	74.3%	11.3%
Other	3.8%	7.7%	$251	69.2%	71.5%	9.9%
Total / Average	**100.0%**	**9.2%**	**$163**	**70.4%**	**78.1%**	**13.9%**

Source: Service Performance Insight, February 2017

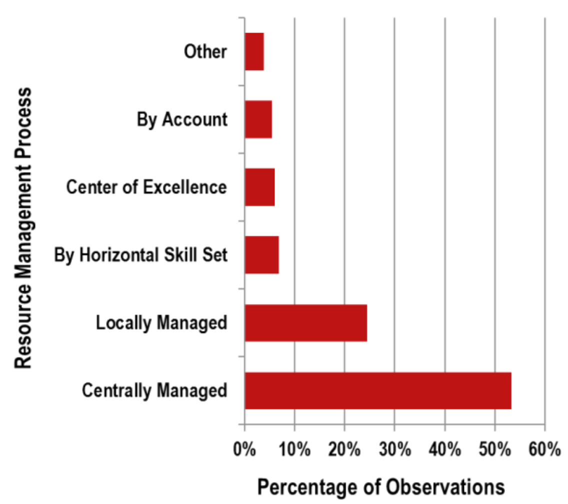
SPI's research shows there may not be "one magic bullet" resourcing strategy that is clearly superior to all others. The five strategies that follow enable PSOs to manage talent and fulfill client demands. Although centralized resource management is the most prevalent strategy, each organization must create a resourcing strategy that works best for their business, with the ultimate goal of increasing utilization *and* client and employee satisfaction.

1. **Centrally-managed** – Most resource management pundits favor "centralized" resource management. It provides superior management visibility into the entire project backlog and level of skills required both today and in the future. Central control may be best for fast-growing organizations with large projects but may not produce the highest levels of billable utilization

because a certain amount of churn and resource and client unhappiness can result from impersonal centralized staffing policies.

2. **Local resource management** – Local resource management is the preferred form of resourcing for young organizations where the workforce is small enough to foster real esprit de corps, and employees wear many hats. Smaller organizations can't afford the overhead of a dedicated resource management function, as relationships and roles are fluid, requiring more local control and finesse. Staffing locally also provides the benefit of closer client relationships and less travel.
3. **By horizontal skill sets** – Managing resources by horizontal skill set is useful for developing best practices, repeatable processes and shared knowledge. For example, many firms have project and program managers report directly or indirectly to the PMO. By building affinity around "birds of a feather," project managers or specialized consultants can more easily share best practices and standardize methodologies, templates, etc. As organizations grow, a horizontal or competency-based overlay reporting structure can help firms develop repeatable best practices and deep, shared expertise while still enjoying the efficiency of centralized management.
4. **Account-based** – Resource management by account may be a good strategy for very large accounts where there is a strong backlog of projects, but account-based resourcing can cause big issues if account revenue dries up. An example was Electronic Data Systems' (EDS) reliance on revenue from General Motors. As the relationship with General Motors soured, and its fortunes began to wane, Electronic Data Systems was left holding the bag. The other drawback to account-based resourcing is that it narrows consultant range of experience as teams are not exposed to different business models and client challenges.
5. **Centers of excellence** – The current trend towards vertical Centers of Excellence (COE) was pioneered by Accenture over the last decade. The advantage of industry-specific "Centers of Excellence" is the development of deep business-domain knowledge. In theory, each Center of Excellence acts as a clearinghouse for specialized knowledge, expertise and solutions. Clients and prospects delight in seeing a "Vision of the Future" for their unique industry challenges. The downside of COE can be excessive overhead, the creation of an ivory tower mentality along with the inability to learn from emerging new horizontal and vertical trends. Further, use of horizontal skills sets and technologies outside the COE can become cumbersome and inefficient. Centers of Excellence are favored for outsourced consulting – particularly development and managed service centers where consultants are collocated to maximize collaboration, design and quality control while minimizing cost.

Figure 62: Resource Management Process



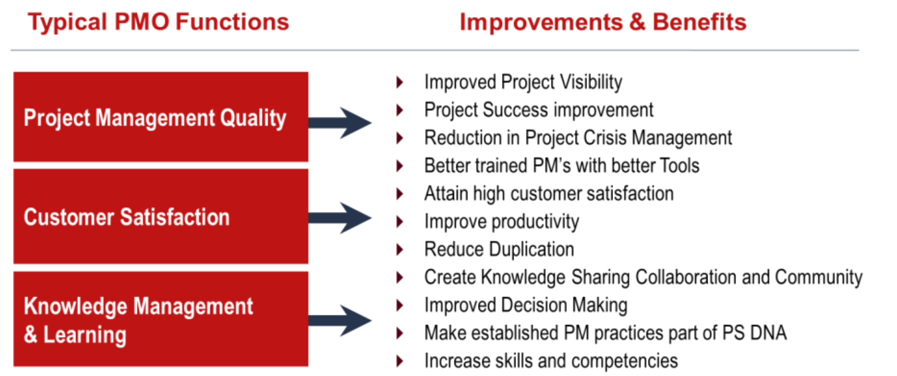
Source: Service Performance Insight, February 2017

Figure 62 shows approximately 53% of respondents manage resource management centrally, with locally managed resource management coming in second at 24%. It is important to remember professional service organizations are based on the unique knowledge, skills and personalities of a highly motivated and compensated workforce. So, erring too far in making resource management more science than art may not always take best advantage of hard-to-find experts. Leading firms understand the skills required and available, and work toward providing additional training to improve employee performance, while ensuring individual travel and project-types and career aspirations are factored in. Investment in people, process and systems allows these organizations to minimize employee attrition and drive utilization to high levels. SPI's research shows PSOs that create standard job positions clarify the skills their workers must have. Providing visibility and additional training helps increase both productivity and morale, both of which improve organizational performance.

The Role of the Project Management Office

PMOs are typically dedicated groups who create and maintain quality standards for project delivery. The primary goal of a PMO is to achieve benefits from standardizing and institutionalizing project management policies, processes, and methods. Over time, a PMO can become the source for guidance, documentation, and metrics related to the best practices involved in consistently managing and executing high quality projects.

Figure 63: Project Management Office Functions, Improvements & Benefits



Source: Service Performance Insight, February 2017

The Project Management Institute (PMI) defines PMO maturity levels as follows:

- Δ **Level 1 – Reactive (Initiated).** Project methods are not documented, few or no standards for controlling project delivery, communication, budgets or schedules exist. At this basic level the goal of establishing a PMO is to start codifying methods and tools while getting a handle on project schedules, budget to actual costs and time. A good first step is to develop a consistent project dashboard with defined criteria for "Red, Amber and Green" project status.
- Δ **Level 2 – Repeatable (Piloted).** At this stage, organizations start adopting repeatable methods, tools and processes. The first step to move to level two is to consistently document the core project lifecycle methodology by defining levels, steps, methods and deliverables. By Level 2 organizations have established consistent processes for estimating, communication, requirements and risk and issue tracking. Level 2 organizations typically have started to

implement a PSA (Professional Service Automation) solution to keep track of projects and resources.

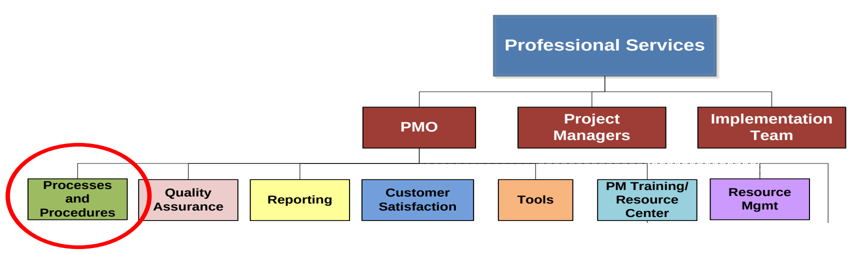
- **Level 3 – Proactive (Deployed).** At this stage, organizations have moved from reactive project management and project oversight to proactive project governance. A standardized methodology is used for the majority of projects accompanied by regular project reviews. Standard escalation procedures are in place for over budget projects to ensure they get back and stay on track. At this stage, a PMO (Project Management Office) is firmly established to provide oversight and guidance. Project and Program managers may report directly or indirectly to the PMO but they rely on it to help them solve complex project issues. At this stage a defined process exists for Knowledge Management and Collaboration to ensure project artifacts are centrally managed and continually refreshed to support continuous improvement.
- **Level 4 – Measured and Innovative (Institutionalized).** At this stage, standard reporting and compliance has become innate throughout the organization. The quality and governance role of the PMO has expanded to become a "Center of Excellence" to codify and promote new innovations.
- **Level 5 – Optimized.** Characterized by continual improvement and collaboration. The PMO has moved beyond being the keeper of standards, quality and governance and has become a dynamic and intrinsic part of the way the business operates. Level 5 PMO organizations are constantly developing new tools and experimenting with ways to reduce cost while improving communication and consistency. The PMO has become a source of innovation and collaboration.

According to Service Performance Insight research, organizations who institute a PMO experience significant improvements in customer satisfaction, repeatability and margins. Instituting a PMO requires an investment in developing a consistent methodology and appropriate project governance to ensure projects stay on time and budget.

Establishing the Project Management Office Charter

Project Management Offices typically focus on improving project management quality through methodology development, project quality oversight and project manager training and certification. The PMO can also provide oversight for and the measurement of project and overall customer satisfaction. The PMO is the creator and keeper of the standard project delivery methodology and supporting forms, templates and standards. Figure 64 illustrates typical PMO charters including:

Figure 64: Typical PMO Charter



Establish Standard Processes and Procedures: *Develop and document standard processes and procedures for project implementation and communication . Support and maintain new and refined repeatable project processes.*

Source: Service Performance Insight, February 2017

- Quality Assurance
- Project Reporting and score-carding
- Customer and project engagement satisfaction
- Methodology and tool development and standardization
- PM training and certification
- Knowledge Management repository and project artifacts

Service Execution Business Processes

In today's economy, cash flow rules. Every organization must focus on cash flow to maintain a solid financial position and maximize profitability and liquidity. In service-oriented organizations this process begins with a client quote and ends once payment is received and the money is in the bank. This macro process of converting sales opportunities into paying customers is often referred to as "quote-to-cash," and its optimization is essential for financial well-being. The power of modern business applications is that they provide workflow, rules, alerts and reporting that mimic best practices in business management. Decades ago services businesses had few viable options as they were forced to build their own, or substantially customize manufacturing-oriented applications, to handle projects and resources. Now, PSA solutions provide modules that support essential business processes, including the critical "quote-to-cash" process (Figure 65).

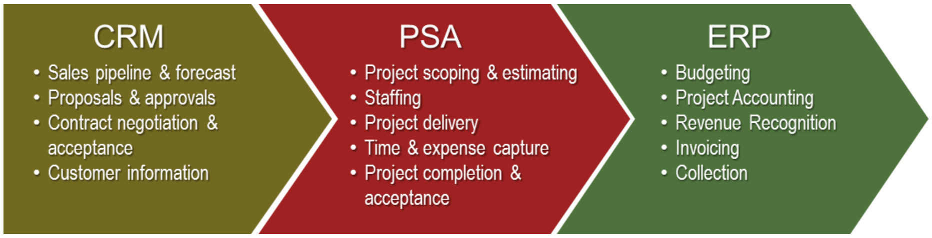
Figure 65: Primary business processes cross multiple departments

Source: Service Performance Insight, February 2017

PSA solutions are designed to integrate core business processes across the organization so that each department has a clear understanding of their roles and measurements and how they impact the organization's ability to succeed. Success can be defined in many terms, such as growth, profit, quality, streamlined operations or reduced administration and rework. Regardless, when everyone works with the same set of information and is focused on the critical path to quality completion of project-based work, results tend to improve.

Figure 66 shows quote-to-cash is a series of interrelated processes supported by client relationship management (CRM), PSA and enterprise resource planning (ERP) modules. To optimize these fundamental business processes, executives rely on the integration of essential business applications to provide visibility, transparency and control. Although each of these applications are offered on a stand-alone basis, the true power of managing the complete quote-to-profit business cycle is best accomplished by integrating best of breed applications together or purchasing an integrated suite of applications.

Figure 66: Quote-to-cash process



Source: Service Performance Insight, February 2017

Survey Results

The following section reviews and analyzes 2017 PS Maturity™ benchmark results from 416 professional services organizations. In this section, SPI Research analyzes 19 Service Execution KPIs that are critical to attaining superior service delivery performance. In this year's study SPI Research included project metrics and margins in this pillar, we also added a question on the number of projects completed over the course of the year.

While year-to-year improvements are important, SPI Research prefers to see changes over the past five years. Table 120 shows Service Execution trends for the last five years. Several positive trends are shown: faster staffing, greater use of a structured delivery methodology, better on-time service delivery, fewer project cancellations and cost overruns. These improvements led to higher project margins. Unfortunately, in this year's study the average price per project went down significantly, from $225,000 in 2015 to $163,000 in 2016, which means it takes many more projects to maintain and grow annual revenue. Project size declined because average project duration decreased from 6.2 to 5.4 months.

Table 120: Service Execution Pillar 5-year trend

Key Performance Indicator (KPI)	2012	2013	2014	2015	2016
Project staffing time (days)	12.48	9.48	9.41	10.40	8.68
Number of projects delivered per year	NA	NA	NA	NA	372
Revenue per project (k)	$170	$189	$189	$225	$163
Concurrent projects managed by PM	5.30	5.16	4.23	5.77	5.56
Project staff size (people)	3.73	3.76	4.85	4.70	4.17
Project duration (months)	5.31	5.15	5.57	6.21	5.44
Projects delivered on-time	78.6%	77.3%	78.3%	76.1%	78.1%

Key Performance Indicator (KPI)	2012	2013	2014	2015	2016
Projects canceled	3.7%	1.9%	1.7%	2.6%	2.0%
Project overrun	9.2%	8.5%	8.9%	10.0%	8.4%
Use a standardized delivery methodology	63.6%	65.1%	66.2%	64.6%	71.2%
Project margin for time & materials projects	35.9%	36.3%	36.3%	33.7%	35.5%
Project margin for fixed price projects	35.9%	37.6%	35.8%	33.0%	34.9%
Project margin — subcontractors, offshore	29.7%	28.8%	28.4%	26.2%	28.3%
Effectiveness of resource management process	3.53	3.47	3.59	3.60	3.59
Effectiveness of estimating processes and reviews	3.44	3.49	3.37	3.55	3.56
Effectiveness of change control processes	3.39	3.36	3.26	3.44	3.45
Effectiveness of project quality processes	3.45	3.38	3.36	3.58	3.61
Effectiveness of knowledge management processes	2.95	3.04	3.01	3.36	3.23

Source: Service Performance Insight, February 2017

This year's study showed that organizations have significantly lowered project staffing times and reduced project overruns. However, on-time delivery dropped slightly over the past five years, but not enough to cause concern. The big winner here is more organizations utilize structured (standardized) delivery methodologies to complete work. Much of this is due to the increased use of Professional Services Automation (PSA) solutions, which enable PSOs to incorporate best practices and quality into the work they do.

Table 121 shows project staffing times have decreased during the past five years by over 30%. It also shows independents staff slightly faster than embedded service organizations, which makes sense due to the complexities of hardware and software installation embedded service organizations contend with. North American-based firms had much faster staffing times than their European and Asia-Pacific counterparts. This benefits the organization in a faster start and completion date.

Table 121: Service Execution KPIs by Organization Type and Geographic Region

Key Performance Indicator (KPI)	2012	2016	ESO	PSO	Americas	EMEA	APac
Average project staffing time (days)	12.48	8.68	9.02	8.48	8.29	9.11	11.30
Number of projects delivered per year	NA	372	384	365	428	269	137
Revenue per project (k)	$170	$163	$136	$177	$163	$172	$133
Concurrent projects managed by PM	5.30	5.56	6.52	5.03	5.86	4.91	4.48
Average project staff (people)	3.73	4.17	4.05	4.24	4.06	4.54	4.28
Average project duration (months)	5.31	5.44	5.22	5.56	5.53	5.83	3.44
Projects delivered on-time	78.6%	78.1%	75.7%	79.5%	78.2%	78.0%	77.8%
Projects canceled	3.7%	2.0%	2.0%	2.0%	2.2%	1.3%	1.8%
Average project overrun	9.2%	8.4%	9.2%	7.9%	8.6%	7.9%	7.6%
Use of a standardized delivery meth.	63.6%	71.2%	73.3%	70.1%	73.0%	66.8%	66.9%

Key Performance Indicator (KPI)	2012	2016	ESO	PSO	Americas	EMEA	APac
Project margin for T&M projects	35.9%	35.5%	35.9%	35.4%	36.1%	34.3%	34.2%
Project margin for fixed price projects	35.9%	34.9%	33.7%	35.5%	35.7%	31.8%	35.8%
Project margin — subs, offshore	29.7%	28.3%	30.0%	27.4%	29.4%	24.9%	27.6%
Effect. of resource management	3.53	3.59	3.48	3.65	3.56	3.73	3.48
Effect. of estimating and reviews	3.44	3.56	3.49	3.60	3.56	3.60	3.48
Effect. of change control	3.39	3.45	3.46	3.44	3.47	3.49	3.19
Effect. of project quality	3.45	3.61	3.44	3.70	3.64	3.53	3.48
Effect. of knowledge management	2.95	3.23	3.09	3.31	3.29	3.10	3.04

Source: Service Performance Insight, February 2017

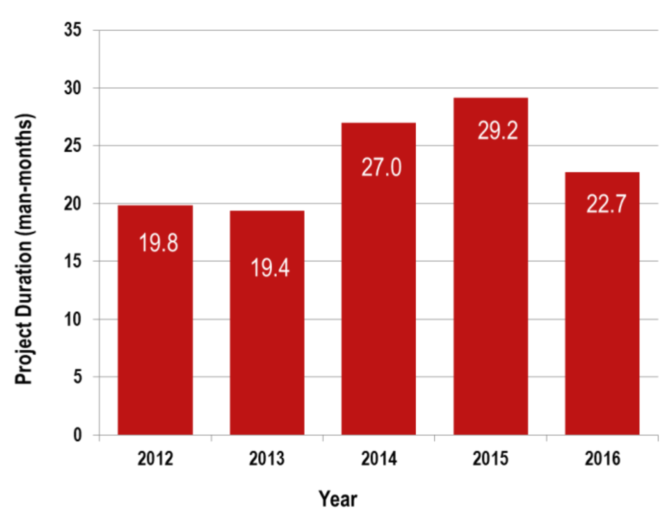
This year, SPI Research considered the number of projects delivered per year. Of note, the Americas-headquartered firms completed nearly three-times the number of projects as those in the Asia-Pacific region. Americas-headquartered PSOs are also three times larger than those headquartered in Asia-Pacific so it makes sense that they deliver more projects. Asia-Pacific headquartered firms delivered smaller projects with fewer employees, causing more resource churn.

Project cancellation rates have dropped over the past five years. Today, PSOs rarely have projects cancelled, but when they do, they throw a monkey wrench into overall operations. Resources must be reallocated, and costs may be absorbed by the PSO. Europe led the way with the fewest projects canceled (1.3%) while the Americas experienced almost twice the number of cancellations (2.2%).

This benchmark highlights services-driven organizations have become more focused on efficiency than five years ago. Project overruns have gone down as the use of standardized delivery methodologies has increased. Project margins have decreased slightly over the past five years, however, not significantly.

Today's project managers receive more training and PMI/PMP certification than ever before. At the same time, the nature of projects is shifting towards more configuration, user interfaces and report design away from the complex, custom mega projects of the past making them somewhat easier to manage and keep within scope. A host of accelerators, configuration, project and knowledge management tools have come to market to enhance knowledge sharing and collaboration while facilitating more natural oversight, guidance and real-time quality reviews to mitigate risks.

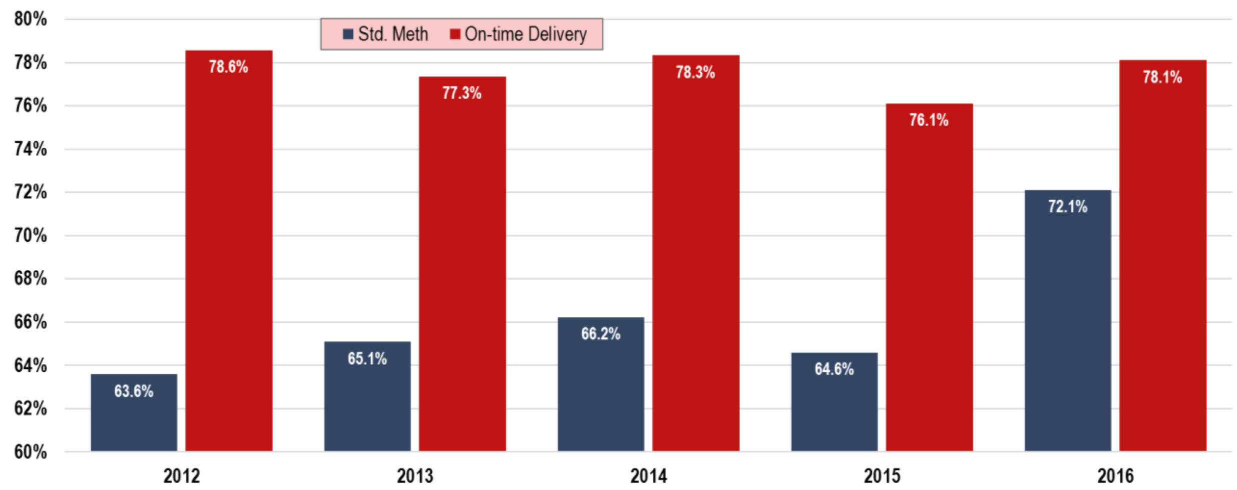
Figure 67: Project Duration (man-months) 5-year trend



Source: Service Performance Insight, February 2017

Across all types of organizations and geographies the average project staff is 4.2 people, a decrease from 4.7 just a year ago. As shown in Figure 67 the overall duration of projects, in terms of man-months, decreased from 2015 to 2016. However, project staff size has been inching up since the recession, growing from 3.73 in 2011 to 4.17 in 2016.

Figure 68: Standardized Delivery Methodology use mapped against On-time Delivery 5-year trend



Source: Service Performance Insight, February 2017

Table 122 shows the differences in service execution metrics by size of organization. As one might expect, the smallest organizations staff faster than larger organizations, and have the highest percentage of on-time project delivery. Of course, as one might also expect, the projects and size of staff are smaller than their peers. Many do not have the resources to implement standardized delivery methodologies, so much of what they do is ad hoc. However, with the exception of subcontractors, project margins for the smallest organizations were fairly competitive.

Table 122: Service Execution KPIs by Organization Size

Key Performance Indicator (KPI)	Under 10	10 - 30	31 – 100	101 - 300	301 - 700	Over 700
Average project staffing time (days)	6.69	7.24	8.22	9.82	10.57	11.88
Number of projects delivered per year	29	120	247	523	1,038	1,208
Revenue per project (k)	$119	$112	$144	$166	$253	$323
Concurrent projects managed by PM	4.54	5.47	6.05	5.62	5.70	4.88
Average project staff (people)	2.89	2.94	4.00	4.62	5.46	6.95
Average project duration (months)	5.59	4.54	5.43	5.49	5.87	6.83
Projects delivered on-time	82.1%	77.5%	79.8%	75.1%	78.2%	75.8%
Projects canceled	2.8%	2.0%	1.5%	1.9%	2.5%	2.7%
Average project overrun	8.0%	9.8%	6.7%	9.2%	6.5%	10.7%
Use of a standardized delivery meth.	69.4%	72.0%	72.4%	68.8%	73.8%	70.5%
Project margin for T&M projects	35.2%	35.3%	36.4%	37.3%	35.7%	30.6%

Key Performance Indicator (KPI)	Under 10	10 - 30	31 – 100	101 - 300	301 - 700	Over 700
Project margin for fixed price projects	35.3%	34.9%	37.0%	33.6%	33.9%	30.7%
Project margin — subs, offshore	24.3%	31.0%	26.9%	28.9%	27.2%	30.0%
Effect. of resource management	3.82	3.67	3.62	3.48	3.50	3.35
Effect. of estimating and reviews	3.76	3.58	3.56	3.37	3.80	3.53
Effect. of change control	3.41	3.40	3.49	3.54	3.45	3.29
Effect. of project quality	3.71	3.60	3.68	3.42	3.65	3.62
Effect. of knowledge management	3.49	3.13	3.34	3.01	3.35	3.18

Source: Service Performance Insight, February 2017

SPI Research found it interesting that smaller organizations also gave themselves higher marks for overall project management delivery, in terms of the effectiveness of resource management, estimating, change control, project management and knowledge management. While not the highest marks in all of these areas, they still felt as though they could deliver projects more efficiently and effectively than their larger peers.

Tables 126 - 127 shows service execution metrics by vertical market. Remarkably, many service execution metrics are very similar across markets. Because SPI research added the number of projects delivered each year, it was interesting to see how many fewer projects were delivered by management consultancies than in other PS segments. They do the best job of on-time project delivery as the majority of their projects are fixed price with clear value-added deliverables. Managed services PSOs reported the worst on-time project delivery.

Table 123: Service Execution KPIs by Vertical Service Market

Key Performance Indicator (KPI)	IT Cons.	Soft-ware	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.	Hard. & Netwrk.
Average project staffing time (days)	9.42	9.07	6.79	7.12	8.91	8.33	9.17
Number of projects delivered per year	237	570	129	545	256	411	555
Revenue per project (k)	$193	$124	$152	$176	$71	$343	$63
Concurrent projects managed by PM	4.33	6.96	4.52	7.24	6.71	6.92	6.00
Average project staff (people)	4.30	4.12	3.20	5.15	3.65	4.08	4.17
Average project duration (months)	5.14	5.30	5.16	8.11	4.44	5.75	4.67
Projects delivered on-time	78.9%	78.2%	85.3%	76.3%	74.9%	74.2%	69.2%
Projects canceled	1.7%	1.7%	1.9%	1.8%	2.1%	3.1%	1.6%
Average project overrun	7.6%	9.2%	7.9%	6.7%	10.0%	7.5%	5.5%
Use of a standardized delivery meth.	71.5%	71.5%	66.2%	77.2%	76.7%	56.7%	66.7%
Project margin for T&M projects	36.4%	36.3%	37.4%	29.3%	34.6%	24.0%	35.0%
Project margin for fixed price projects	35.3%	32.4%	38.2%	29.8%	33.1%	26.0%	37.5%
Project margin — subs, offshore	29.9%	30.2%	26.5%	14.8%	29.7%	23.0%	40.0%

Key Performance Indicator (KPI)	IT Cons.	Soft-ware	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.	Hard. & Netwrk.
Effect. of resource management	3.62	3.40	3.74	3.54	3.77	2.83	3.00
Effect. of estimating and reviews	3.62	3.40	3.76	3.42	3.69	3.50	4.00
Effect. of change control	3.45	3.44	3.50	3.46	3.56	3.33	2.67
Effect. of project quality	3.62	3.46	3.84	3.73	3.59	3.33	3.67
Effect. of knowledge management	3.23	2.94	3.34	3.58	3.31	3.00	2.50

Source: Service Performance Insight, February 2017

Table 124: Service Execution KPIs by Vertical Service Market Continued

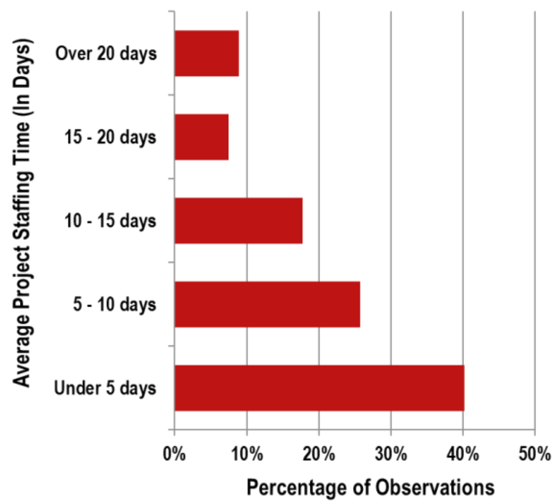
Key Performance Indicator (KPI)	R&D	VAR	Acct.	Advert. (Marcom)	Staff.	Other PS
Average project staffing time (days)	14.50	8.65	9.50	4.17	8.50	8.33
Number of projects delivered per year	68	201	4,155	343	66	347
Revenue per project (k)	$103	$75	$90	$83	$95	$287
Concurrent projects managed by PM	5.80	5.73	9.08	5.50	6.50	5.29
Average project staff (people)	5.80	3.46	4.17	5.50	2.75	4.77
Average project duration (months)	5.80	4.23	6.42	4.50	9.75	6.07
Projects delivered on-time	78.0%	72.3%	66.7%	80.0%	87.5%	76.9%
Projects canceled	5.4%	2.2%	0.4%	3.6%	8.5%	2.2%
Average project overrun	17.5%	11.0%	13.0%	7.9%	7.5%	7.7%
Use of a standardized delivery meth.	62.0%	83.8%	73.3%	46.7%	80.0%	67.6%
Project margin for T&M projects	35.0%	37.7%	36.0%	42.5%	23.3%	36.5%
Project margin for fixed price projects	39.0%	31.5%	39.2%	42.5%	18.3%	40.0%
Project margin — subs, offshore	30.0%	24.5%	23.0%	38.3%	15.0%	31.1%
Effect. of resource management	4.25	3.58	3.50	3.50	3.75	3.60
Effect. of estimating and reviews	3.50	3.00	3.67	3.83	3.75	3.37
Effect. of change control	3.25	3.42	3.00	3.17	3.25	3.60
Effect. of project quality	4.00	3.00	3.50	4.17	3.50	3.60
Effect. of knowledge management	3.75	3.25	3.33	3.50	3.50	3.20

Source: Service Performance Insight, February 2017

Project Staffing Time

As PSOs grow, typically the size and scope of projects increases, which increases project staffing complexity. Now, many PSOs take days or weeks to staff projects, waiting to find the “right” resources. Average project staffing time in 2016 is 8.7 days, approximately 20% lower than the 10.4 days one year ago. ESOs reported slightly longer staffing time (9.02 days) than their independent counterparts (8.48 days). This key performance indicator is important because it is an early warning sign of too much demand when it takes longer and longer to assemble the right team. It is a leading indicator of tightening resource availability and can be a signal to start recruiting and hiring. Rapid resource deployment can only be attained with accurate visibility to current and future demand along with the right mix of required resource skills, schedules and preferences.

Figure 69: Project Staffing Time (days)



Source: Service Performance Insight, February 2017

Total Projects Delivered each Year

In this year's benchmark SPI Research added the total number of projects delivered each year. This key performance indicator shows the variance of projects delivered. The fewer projects delivered the higher the probability they are more complex. Some firms prefer shorter duration projects, with structured delivery methodologies, that are easily repeatable, to maximize margins. However, many clients require more complicated and longer duration projects, which do help maximize billable utilization, but have a whole host of other issues associated with risk, on-time delivery, cost overruns and reduced client satisfaction.

Table 125 highlights accountancies complete significantly more projects every year than their peers in other markets. Many have implemented repeatable processes, due to government regulations that mandate the type of information they must gather and report. This use of structured delivery methodologies enables them to complete more work, on smaller projects, and with greater accuracy. Software and hardware providers also complete more projects than their peers. As stated earlier in this report, organizations in North America complete significantly more projects than their peers in the European and Asia-Pacific markets.

Table 125: Annual Projects Completed

Parameter	Projects Completed
Survey Average	372
ESO	384
PSO	365
America	428
EMEA	269
APAC	137
Under 10	29
10 -30	120
31 - 100	247
101 - 300	523
301 - 700	1,038
Over 700	1,208

Source: SPI Research, February 2017

Revenue per Project

The average revenue per project is calculated by dividing the total revenue of the service organization by the total number of projects delivered. This KPI provides insight into the size, scope, and duration of projects. Many PSOs complete many small projects along with a few larger ones, which may skew revenue per project. Wide variability in project size stresses resource management predictability.

Project size has varied greatly over the past five years, and in 2016 it went down to $163,000, its lowest level in over five years. Line of business buyers tend to prefer smaller projects, which are faster in duration, complexity and cost. However, the decrease from $225,000 in 2015 to $163,000 in 2016 is significant. SPI Research will wait to see if this is a trend or an anomaly. Embedded service organizations saw this figure go down by 25%, to $136,000 whereas independents saw a 28% decrease, down to $177,000 per project. IT consultancies led the way this year with $193,000 per project.

Although net profit margin is not directly related to project size it is generally harder to make money on smaller projects. Smaller projects can strain utilization levels and cause resource churn, meaning effective resource management and service packaging are critical.

If the majority of projects are small, PSOs must focus on efficiency and repeatability. The worst possible scenario is a series of short projects requiring unique skills with little potential for repeat or referral business. The trend toward shorter, faster, more iterative projects bodes well for project success and client satisfaction, but adds additional business development costs and resource scheduling strain to quickly staff projects and dynamically reassign resources.

Table 126 compares the average revenue per project to other key performance indicators. The results show as projects become larger in size, PSOs are able to improve per consultant and per employee revenue yields, but have slightly lower on-time delivery. There were very few projects over $1 million, so the results are inconclusive. If not carefully managed, mega-projects can deliver big losses and unwarranted levels of risk. It is important to note that the use of standard project methodologies and project management governance practices must increase with project size and complexity. The good news is that the project management discipline has improved significantly over the past 20 years with many organizations investing in PMI training and certification.

Table 126: Impact – Revenue per Project

Revenue / Project	Survey Percent	On-time Delivery	Rev./ Bill. Emp. (k)	Rev./ Emp. (k)	Proj. Margin
Under $25k	15.4%	77.3%	$185	$130	32.0%
$25k - $50k	19.7%	76.8%	191	$152	34.4%
$50k - $100k	23.9%	77.6%	213	$176	37.8%
$100k - $250k	21.9%	80.1%	212	$169	36.1%
$250k - $500k	12.0%	79.0%	213	$167	34.2%
$500k - $1mm	5.7%	75.5%	230	$201	36.4%
Over $1mm	1.4%	69.0%	233	$158	32.9%
Total / Avg.	**100.0%**	**77.9%**	**$205**	**$163**	**35.3%**

Source: Service Performance Insight, February 2017

Concurrent Projects Managed by Project Manager

The number of concurrent projects managed by a project manager is a measurement of project management efficiency and effectiveness. Larger more complex projects require more skilled, dedicated project or program managers, while multiple, smaller concurrent projects tax the scheduling and multi-tasking ability of even the most skilled project managers. It is also a good indicator of project complexity and risk. Typically, firms use a 20-20 rule for project management, 20% of the overall cost of the project is allocated to project management and a project manager is usually assigned at least 20% of his/her time to a given project. Project management effort is most intense at the beginning and end of the project.

Over the past year project managers have taken on approximately 4% fewer projects than during 2015. Smaller organizations have decreased their emphasis on more projects per manager, as well as the largest organizations. However, those organizations with between 30 and 700 employees have increased the number of projects project managers take.

Table 127 shows a reduction in billable utilization as project managers take on additional projects. However, profitability increases as the ratio gets higher. This KPI is interesting in that traditionally higher billable utilization means higher profit. But one cannot underestimate the importance of structured service delivery methodologies, which make it much easier to manage multiple projects. The greater the number of projects managed shows a higher net profit, meaning less overhead on a per project basis. The percentage of the workforce in dedicated project management roles is declining in favor of tasking either business consultants and/or technical consultants to perform this role in addition to their own billability.

Table 127: Impact –Concurrent Projects Managed by Project Manager

Concurrent Projects Managed	Survey Percent	Billable Utilization	Revenue / Emp. (k)	EBITDA
1 - 2	20.4%	72.0%	$165	13.1%
3 - 5	44.6%	70.8%	$159	11.8%
6 - 8	16.5%	71.1%	$172	15.7%
9 - 11	6.9%	68.8%	$165	19.6%
Over 11	11.6%	66.0%	$161	19.2%
Total/Average	**100.0%**	**70.4%**	**$163**	**14.1%**

Source: Service Performance Insight, February 2017

Project Staff Size

Over the past three years there has been a trend toward fewer people working on individual projects. The trend was opposite just a few years ago, but now PSOs are focused on reducing the cost of service delivery and by maintaining longer engagements to improve overall billable utilization. Much of this change is due to the trend toward fixed-price, fixed-time engagements, which force PSOs to complete work under-budget, as well as on-time and on-budget to maximize profits.

Table 128: Impact – Project Team Size (people)

Project Team Size (people)	Survey Percent	Billable Utilization	Revenue / Billable Emp. (k)	Revenue / Emp. (k)
1 - 2	27.3%	67.8%	$196	$157
3 - 5	53.8%	70.4%	211	$166
6 - 8	12.0%	73.5%	222	$179
9 - 11	4.6%	74.7%	155	$120
Over 11	2.2%	75.0%	207	$164
Total/Average	**100.0%**	**70.4%**	**$205**	**$163**

Source: Service Performance Insight, February 2017

Shorter, more iterative, "agile" projects usually result in improved project value and ROI plus clients can cancel projects that fail to meet objectives. Smaller, faster projects make it more difficult to plan and schedule resources, increasing resource management complexity and bench time, which reduces overall profitability. This situation creates more resource churn, and must be accounted for in terms of higher bill rates or greater projected hour padding.

Table 128 shows that 81% of projects have five or fewer people. It also shows an increase in billable utilization as the project team size gets larger. However, less than 7% of projects have more than eight people on them. Overall firm profitability increases with project team size because firms have greater visibility and lower resource churn with large project teams. Today's PSOs must learn to effectively manage a project portfolio of both short and longer projects. Effective resource management, use of standard methods, tools and templates and high quality project management are best practices regardless of project size.

Project Duration

The average project duration, expressed in months, depicts the effectiveness, or lack thereof, of selling longer term projects. The average project duration, like average project staff size, is important in that it shows the average length and scale of today's projects. Longer projects are easier to staff but are not necessarily more profitable because longer and larger projects may involve significantly more risk and complexity.

Table 129 shows approximately two-thirds of the projects are six months or less in duration while the other third is longer. It also shows billable utilization increases as the project duration increases. Longer projects enable organizations to keep people working on the same project and not bouncing around, which typically lowers billable utilization. And this increase in billable utilization also shows up in higher revenue per billable consultant, as well as per employee.

Table 129: Impact – Project Duration

Project Duration (months)	Survey Percent	Billable Utilization	On-time project delivery	Revenue per billable consult. (k)
Under 1	3.8%	64.3%	78.2%	$186
1 - 3	24.4%	68.6%	80.2%	204
3 - 6	39.5%	69.7%	76.8%	206
6 - 9	16.2%	74.0%	77.9%	204
9 - 12	10.7%	72.8%	76.2%	217
Over 12	5.5%	72.2%	81.3%	204
Total/Average	**100.0%**	**70.4%**	**78.1%**	**$205**

Source: Service Performance Insight, February 2017

SPI Research, once again this year, found project duration does not seem to impact on-time project delivery as both the shortest and longest duration projects reported the best on-time project delivery.

On-time Project Delivery

The percentage of projects delivered on time is a measurement that divides the number of projects completed on-time by the total number of projects. This KPI is critical for billable service organizations, because when it decreases, both profitability and client satisfaction decline (Table 130). Unfortunately, on-time project delivery rates tend to be less than 80% on average for PSOs.

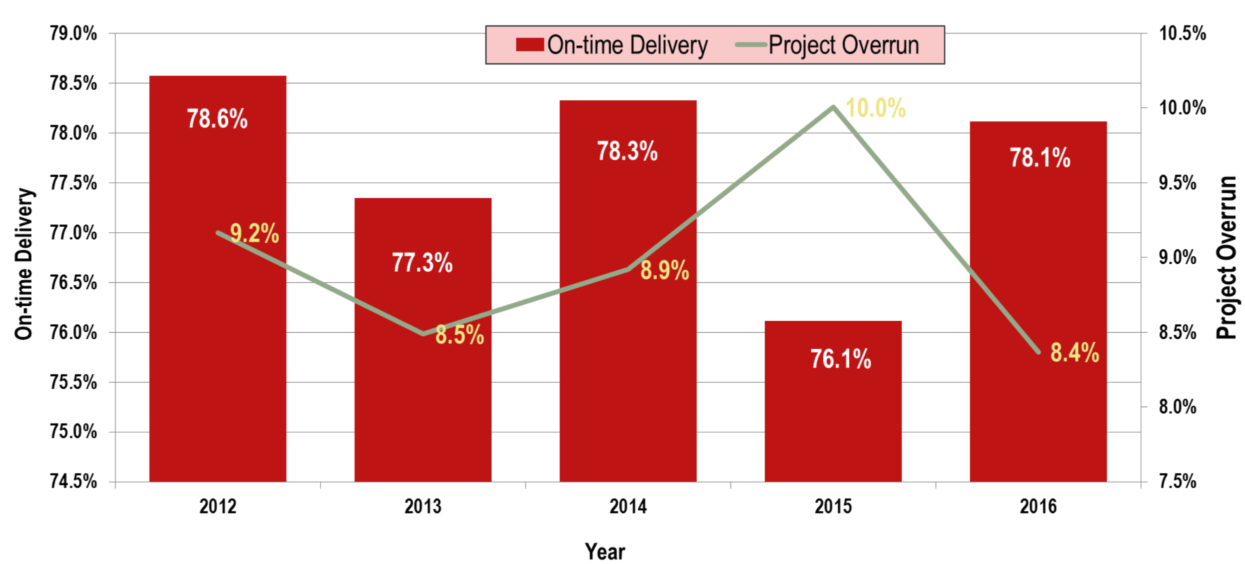
Table 130: Impact – On-time Delivery

On-time Project Delivery	Survey Percent	Rev. per Billable Consult. (k)	Project Margin	% of Revenue Achieved
Under 40%	3.3%	$220	30.6%	90.0%
40% - 60%	7.4%	171	29.0%	87.6%
60% - 70%	12.1%	187	34.9%	90.4%
70% - 80%	22.0%	206	35.6%	92.9%
80% - 90%	30.5%	212	36.6%	91.5%
Over 90%	24.7%	214	36.0%	94.6%
Total/Average	**100.0%**	**$205**	**35.3%**	**92.1%**

Source: Service Performance Insight, February 2017

In 2016 the percentage of projects delivered on-time increased by 3% (78.1%). Independents have a slightly higher percentage of on-time project delivery (79.5%) than embedded PSOs (75.7%). On-time delivery is an extremely important key performance indicator because it impacts both client satisfaction and the ability to take on new projects. When projects are delivered late, client satisfaction suffers. It also causes new projects to be delayed because of the lack of available resources. PS executives strive to keep employees utilized. However, when they cannot start work because prior projects are late, everyone suffers.

Figure 70: On-time Delivery Mapped to Project Overrun 5-year trend



Source: Service Performance Insight, February 2017

As Figure 70 shows, on-time delivery negatively correlates with project overruns. Obviously, this correlation makes sense as organizations that cannot get work completed on time, typically cannot get them completed on budget. The need for greater project management capabilities and tools is paramount to improving this key performance indicator, which ultimately helps improve profitability in professional services.

Project Cancellation

The project cancellation rate represents the number of projects canceled divided by total projects. In billable professional services organizations, the project cancellation rate is typically quite low when compared to internal IT organizations. However, it is important because if projects are canceled the organization must scramble to reallocate resources to keep utilization rates high, not to mention strive to improve the damaged client relationship.

As SPI Research has shown throughout the 2017 PS Maturity benchmark, project cancellation rates have varied for the past five years, from a low in 2014 of 1.7%, to a high of 3.7% in 2012. Therefore, the 2016 results are fairly low. While the percentage of projects canceled in professional services is much less than that of internal projects, it still is noteworthy that both embedded and independence showed significant decreases in project cancellation. Table 131 shows the correlation between project cancellation rates and project margin, annual revenue per billable consultant, and profit. As one might expect, there is a strong correlation between low project cancellation rates and margin profitability and revenue. So while this is fairly obvious, it does reflect the importance of proper planning and execution of projects so that they will not be cancelled.

Table 131: Impact – Project Cancellation

Project Cancellation	Survey Percent	Project Margin	Annual Rev. per Consult. (k)	Profit (EBITDA)
None	18.1%	39.5%	$206	16.6%
0% - 1%	30.6%	35.4%	213	14.8%
1% - 2%	21.9%	32.5%	214	12.7%
2% - 5%	19.4%	36.7%	194	14.0%
5% - 7%	5.6%	35.0%	211	12.9%
7% - 10%	2.5%	24.9%	166	10.8%
Over 10%	1.9%	21.6%	133	8.4%
Total/Avg.	**100.0%**	**35.2%**	**$205**	**14.2%**

Source: Service Performance Insight, February 2017

Project Overrun

Project overrun is the percentage of actual to budgeted cost or actual to budgeted time. Project overruns may be expressed in actual time/cost versus plan. This KPI is important because anytime a project goes over budget in either time or cost; it cuts directly into the PSO's profitability. Project overruns, like projects not delivered on time, limit future work and client satisfaction. In many instances project overruns indicate a lack of project governance, which negatively impacts bottom-line results.

Table 132 highlights how project overruns significantly impact billable utilization, on-time project completion, project duration and the annual revenue per consultant. It shows a significant negative correlation to billable utilization, on-time completion and annual revenue per consult. And as one might expect, overbudget projects usually mean project durations have increased as well. Employee morale is also negatively impacted when projects go awry as evidenced by higher levels of voluntary attrition.

Table 132: Impact – Average Project Overrun

Avg. Project Overrun	Survey Percent	Billable Utilization	On-time Completion	Annual Rev. per Consult. (k)	Project Duration (man-months)
Never	6.2%	71.5%	91.8%	$185	37.0
0% - 5%	34.5%	70.4%	85.0%	$168	22.1
5% - 10%	37.0%	70.7%	76.9%	$163	23.0
10% - 20%	15.3%	70.9%	68.7%	$155	29.8
20% - 30%	2.5%	69.4%	76.7%	$150	30.8
Over 30%	4.5%	63.7%	51.9%	$134	35.0
Total/Average	**100.0%**	**70.3%**	**78.2%**	**$163**	**25.3**

Source: Service Performance Insight, February 2017

Standardized Delivery Methodology

SPI Research asked PSOs what percentage of the time they used a standard (or structured) delivery methodology to manage projects. Mature firms invest significant time and attention to methodology development as a means to standardize project processes; define expectations and institutionalize quality. Using a standardized delivery methodology is a critical component of a services productization strategy. It helps improve project forecasting, resource management, cost and profitability. PSOs that can accurately plan and execute services in a structured way, are not only more productive but also more likely to deliver quality results. There is significant effort involved in developing, implementing and adhering to standardized delivery methodologies, but the net impact for PSOs is beneficial.

Table 133: Impact – Standardized Delivery Methodology Use

Standardized Delivery Methodology Use	Survey Percent	Billable Utilization	Revenue / Billable Consult. (k)	Project Margin
Under 20%	7.1%	69.8%	$178	32.8%
20% - 40%	5.9%	69.5%	167	32.1%
40% - 60%	10.7%	67.8%	170	34.5%
60% - 80%	26.3%	70.9%	212	35.1%
Over 80%	50.0%	70.5%	218	35.8%
Total/Average	**100.0%**	**70.2%**	**$205**	**35.1%**

Source: Service Performance Insight, February 2017

In 2016 SPI Research found utilizing a standardized delivery methodology rose to over 70% for the first time in the survey's history! The 71.2% attained in 2016 is much higher than its five-year average of 66.4%. Embedded services organizations had a slightly higher standardized methodology delivery rates than independents, 73.3% versus 70.1%, while organizations with between 300 and 700 people showed the highest level at 73.8%. By vertical market, value-added resellers were the only market with over 80%, at 83.8%. As one might expect advertising agencies were the lowest at 46.7%.

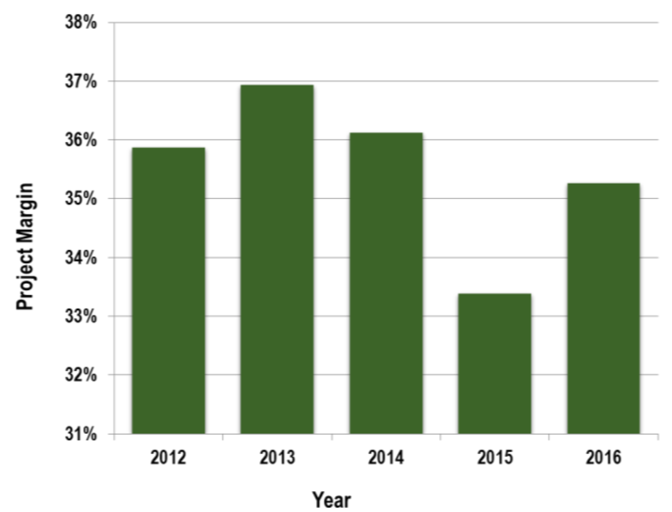
Table 133 compares the percentage of time a standardized delivery methodology is used to other key performance indicators for the PSOs answering the question. The table shows that PSOs using a standardized delivery methodology have higher billable utilization, revenue per consultant and project margin. They are also much more likely to deliver projects on-time. The impact of utilizing a standardized delivery methodology to improve project execution and cannot be understated. Leading firms incorporate quality control and knowledge into every step taken, to ensure their consultants understand their exact responsibilities, time and cost.

Project Margin

Project margin is the percentage of revenue which remains after accounting for the direct costs of project delivery. Projects can be fixed-price, milestone-based, "not to exceed" or time and materials, where the PSO essentially charges by the hour with additional payment for any materials used during the engagement. Typically, time and materials based projects produce the best profitability as long as bill rates are set appropriately. "Not to exceed" projects should be avoided as they provide none of the benefits of fixed price projects but carry all of the risks. Cost-plus contracts are also undesirable; they are most prevalent in government work which tends to be penny-wise and pound-foolish. Clients and service providers alike should be focused on paying fairly for work that delivers promised results. If the project benefit is substantial, then assuring successful delivery is of paramount importance.

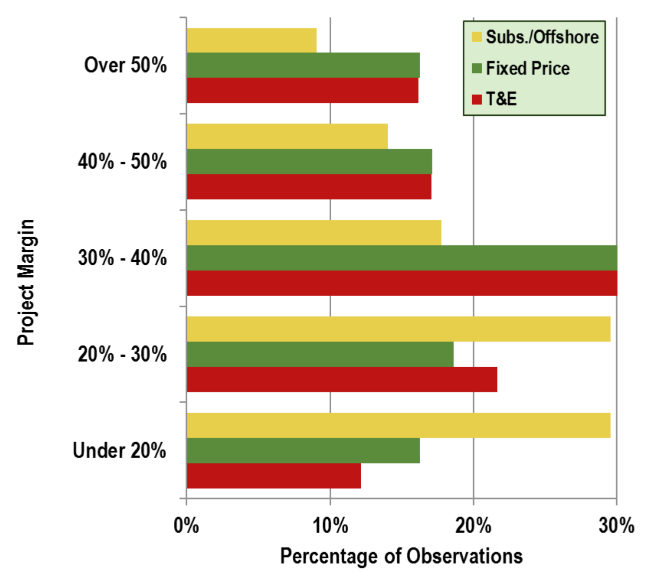
Figure 71 shows average project margins improved in 2013 but declined in 2014 and declined further to 32% in 2015, the lowest project margins we have seen since the recession. Fortunately, in 2016 project margins increased to back over 35%. This metric underscores the importance of a

Figure 71: Project Margin Five-year Trend



Source: Service Performance Insight, February 2017

Figure 72: Project Margin



Source: Service Performance Insight, February 2017

holistic view of PS, as one important metric like project profit can cause a ripple effect leading to lower overall net profit.

Leading professional services organizations strive to achieve project margins over 35% but as Figure 72 shows, approximately one third of the organizations surveyed consistently achieve project margins greater than 40%. Low margin projects are caused by a variety of issues including poor estimates, significant scope change, lack of a clear project charter, poor management, poor execution and poor communication. Organizations with lower project margins struggle to meet annual revenue targets. Advertising agencies had the highest project margins in this year's survey, at 42.5%, whereas staffing agencies had the lowest at 23.3%. Staffing agencies make up in quantity of people and billing versus high margins on project-based work.

Project Margin: Time and Materials Projects

in 2016 the project margin for time and expense-based (35.5%) work was slightly higher than the five-year average of 35.2%. It was a healthy increase over 2015, when the project margin for time and expense based projects was 33.7%. Advertising agencies showed the highest project margin at 42.5% and staffing agencies were the lowest at 23.3%. Organizations with between 100 and 300 employees had project margins for time and materials based projects of 37.3%, the highest in the survey. The largest organizations, with over 700 employees, had the lowest average project margin at 30.6%.

Table 134: Impact – Project Margin – Time and Expense Projects

Project Margin – Time and Expense Projects	Survey Percent	Billable Utilization	Rev. / Billable Consult (k)	Real-time Visibility
Under 20%	12.1%	67.1%	$149	3.21
20% - 30%	21.7%	72.5%	203	3.16
30% - 40%	32.9%	70.9%	209	3.60
40% - 50%	17.1%	71.6%	227	3.71
Over 50%	16.2%	69.2%	213	3.80
Total/Average	**100.0%**	**70.6%**	**$204**	**3.51**

Source: Service Performance Insight, February 2017

Table 134 compares the average project margin on time and expense projects to other key performance indicators. SPI Research found similar results when compared to fixed price projects. Most of the key performance indicators improve as project margins rise. Real-time visibility and a strong project management discipline are key ingredients of driving project success. Every PSO should maintain and review a real-time project dashboard showing the health of projects including budget to actual performance.

Project Margin: Fixed Price Projects

In 2016 the project margin for fixed price projects was exactly its five-year average of 34.9%. Similar to time and expense based projects, the largest organizations (with over 700 employees) had the lowest project margins at 30.7%. Those with between 30 and 100 employees had the highest at 37.0%.

Table 135 compares the average project margin on fixed price projects to other key performance indicators. Every organization strives for high project margins, which help increase organizational profit.

This table shows organizations with the highest fixed price project margins completed more projects on-time. They also generated higher revenues per employee and higher net profit margins.

Table 135: Impact – Project Margin – Fixed Price Projects

Project Margin – Fixed Price Projects	Survey Percent	Billable Utilization	On-time Completion	Revenue/ Employee (k)
Under 20%	16.3%	69.2%	71.8%	$162
20% - 30%	18.6%	70.1%	76.6%	201
30% - 40%	31.7%	71.0%	79.3%	201
40% - 50%	17.2%	72.2%	81.2%	230
Over 50%	16.3%	69.1%	79.4%	234
Total/Average	**100.0%**	**70.4%**	**77.9%**	**$205**

Source: Service Performance Insight, February 2017

Project Margin: Subcontractors

The margin derived from subcontractors and offshore resources is an extremely important key performance indicator and should be managed very closely, as it can significantly impact net profit.

Table 136: Impact – Project Margin – Subcontractors/Offshore

Project Margin – Subcontractor / Offshore	Survey Percent	Project Margin: T&M	Project Margin: Fixed Price	EBITDA
Under 20%	35.8%	25.6%	26.1%	12.1%
20% - 30%	28.7%	31.9%	32.2%	17.1%
30% - 40%	17.5%	38.6%	34.8%	16.6%
40% - 50%	10.3%	42.0%	40.1%	16.2%
Over 50%	7.7%	50.1%	46.7%	18.8%
Total/Average	**100.0%**	**33.3%**	**32.4%**	**15.3%**

Source: Service Performance Insight, February 2017

Typically, the goal for subcontractor margin is at least 30%. Unfortunately, the average subcontractor margin has still not been above this level, but did increase from last year's 26.2% to 28.3% in 2016. Hardware professional services organizations took advantage of offshore labor and had the highest project margins of 40%. In 2012 subcontractor margin was a relatively healthy 29.7%.

If firms cannot improve margins by using subcontractors, they will move to a richer mix of direct labor. Although seasoned consultants may enjoy a role as independent contractors because they have more control over the type of work and work hours, service providers will only use a variable workforce if it gives them greater flexibility at the same or higher margins. This is an important metric to watch and measure as it can have a dramatic effect on bottom-line profit. The use of subcontractors will decline as PS growth slows.

Effectiveness of the Resource Management Process

SPI Research asked survey respondents to rate the effectiveness of their resource management process with 1 = poor and 5 = great. Although subjective, this key performance indicator is an important measurement of how effective the organization views its resource management processes. Resource management is critical to project planning and execution. PSOs who effectively and efficiently manage resources show much higher utilization rates, more projects delivered on-time and higher project margins and company profitability.

Table 137 compares the effectiveness of resource management processes to other key performance indicators for the PSOs answering the question. The table shows a strong correlation between resource management effectiveness, billable utilization, and on-time completion. Clearly resource management effectiveness improves directly with the use of PSA solutions. While this question is subjective in nature, the results are compelling enough to show how important resource management is to improving performance.

Table 137: Impact – Resource Management Effectiveness

Resource Management Effectiveness	Survey Percent	Use a Std. Delivery Method.	Billable Utilization	On-time Completion	Project Margin
1 - Low	2.2%	66.0%	72.0%	51.0%	31.3%
2	10.2%	69.3%	69.5%	70.2%	35.1%
3	26.9%	68.6%	69.2%	74.5%	34.8%
4	47.3%	69.2%	70.9%	79.8%	33.5%
5 - High	13.5%	78.1%	68.8%	83.9%	33.4%
Total/Average	**100.0%**	**70.2%**	**70.0%**	**77.3%**	**34.0%**

Source: Service Performance Insight, February 2017

Effectiveness of Estimating Processes

SPI Research asked survey respondent to rate the effectiveness of their estimating processes and estimate reviews, with a rating of 5 for excellent to one for poor. This key performance indicator is important as accurate estimates hold the key to all other service delivery metrics. Inaccurate estimates lead to miss-set client expectations; project overruns and poor client satisfaction. While this subjective KPI might be hard to fathom, its results show how some of the most important KPIs improve as the organization becomes more effective in their estimating processes. Table 138 compares the effectiveness of

Table 138: Impact – Effectiveness of estimating processes and reviews

Effectiveness of estimating processes & estimate reviews	Survey Percent	Billable Utilization	On-time Delivery	EBITDA
1 - Low	1.5%	66.7%	20.0%	NA
2	11.3%	69.4%	63.1%	15.2%
3	27.7%	69.2%	74.8%	13.6%
4	50.0%	70.7%	81.8%	16.2%
5 - High	9.5%	69.8%	85.4%	20.8%
Total/Average	**100.0%**	**70.0%**	**77.2%**	**15.6%**

Source: Service Performance Insight, February 2017

estimating processes to other key performance indicators. On-time project completion improves; so does revenue per employee and most importantly, overall net profit improves dramatically. Estimating requires significant investment in methodology development and scoping projects to the task level, but obviously from this table it is well worth the time to ensure accuracy and completeness.

Effectiveness of Change Control Processes

SPI Research asked executives their opinion of the effectiveness of their change control processes, with a rating of one for poor to five for excellent. All projects involve risk, scope management and change. The important question is how these variables are managed. Mature PSOs invest in developing change and risk management policies along with PM training and PMO oversight and guidance. They must also consider the impact of the change and how it will effect subsequent projects. A critical component of change control is to ensure project margins do not suffer. Ideally, project changes are clearly outlined; client perception is appropriately managed and change orders are put in place. Too many change orders not only impact the budget and schedule but may be signs of scope creep as well as inadequate executive sponsorship and poor communication.

Table 139 compares the effectiveness of change control processes to other key performance indicators. Again, like the organizations with high levels of resource management and estimating effectiveness, those organizations that manage change the best demonstrate significantly higher KPIs in both the service execution and finance and operations pillars. What these key performance indicators demonstrate is that the devil is in the details. Organizations that focus on basic execution issues such as resources, estimating and change control drive superior results compared to those organizations that place less emphasis on these critical issues.

Table 139: Impact – Effectiveness of change control processes

Effectiveness of change control processes	Survey Percent	Billable Utilization	On-time Delivery	EBITDA
1 - Poor	2.6%	55.8%	35.8%	-17.2%
2	11.3%	67.4%	73.5%	8.5%
3	30.7%	69.1%	75.2%	19.0%
4	49.3%	71.5%	80.7%	15.8%
5 - Excellent	6.2%	72.1%	83.8%	13.4%
Total/Average	**100.0%**	**69.9%**	**77.2%**	**15.0%**

Source: Service Performance Insight, February 2017

Effectiveness of Project Quality Processes

SPI Research asked executives their opinion of the effectiveness of their project quality processes, with a rating of one for poor to five for excellent. Quality must be a core organizational attribute that is built into projects and project management processes. Most leading professional services organizations build in quality checks and balances to assure the work is done correctly.

As more PSOs work to productize their services offerings, they must incorporate quality processes and procedures, as well as metrics. High quality service delivery underlies client satisfaction and drives referrals and repeat business. Table 140 shows results improve across the board as quality processes are implemented.

Table 140: Impact – Effectiveness of Project Quality Processes

Effectiveness of Project Quality Processes	Survey Percent	On-time Completion	Revenue/ Consult. (k)	Revenue/ Emp. (k)
1 - Poor	0.7%	50.0%	$225	$175
2	11.3%	69.8%	204	$173
3	27.7%	74.4%	205	$162
4	48.5%	78.5%	194	$148
5 - Excellent	11.7%	87.8%	217	$184
Total/Average	**100.0%**	**77.3%**	**$201**	**$159**

Source: Service Performance Insight, February 2017

Effectiveness of Knowledge Management Processes

SPI Research asked benchmark respondents their opinion of the effectiveness of their knowledge management processes, with a rating of one for poor to five for excellent (Table 141). Knowledge management has become a critical component of service execution. Best practices and other quality-driven initiatives are built-in into project delivery. Assuring the right information is available to all those who need it is paramount to success. Over the past five years' knowledge management, especially using social media and collaboration tools, has moved to the forefront of service execution. Team members now work more collaboratively to achieve project objectives. The table shows that effectiveness of Knowledge Management processes has a positive impact on both service delivery and financial results.

Table 141: Impact – Effectiveness of Knowledge Management processes

Effectiveness of Knowledge Mgmt. processes	Survey Percent	Billable Utilization	On-time Completion	EBITDA
1 - Poor	3.6%	67.2%	63.9%	23.0%
2	18.2%	67.4%	71.0%	10.6%
3	32.8%	69.6%	76.7%	17.0%
4	38.0%	70.8%	81.2%	17.4%
5 - Excellent	7.3%	75.3%	82.3%	9.9%
Total/Average	**100.0%**	**70.0%**	**77.3%**	**15.7%**

Source: Service Performance Insight, February 2017

12. Finance and Operations Pillar.

The Finance and Operations pillar represents the realm of the CFO for large PS organizations, and is an intrinsic part of the role of the chief service executive for all PS organizations, regardless of size. In this service performance pillar SPI Research examines 27 key performance measurements for revenue, margin and operating expense. We include detailed profit and loss statements and expense ratios by organization size, geography and vertical. Table 142 highlights attributes of the Finance and Operations pillar as the organization matures.

Table 142: Finance and Operations Performance Pillar Maturity

	Level 1 Initiated	Level 2 Piloted	Level 3 Deployed	Level 4 Institutionalized	Level 5 Optimized
Finance and Operations	The PSO has been created but is not yet profitable. Rudimentary time & expense capture. Limited financial visibility and control. Unpredictable financial performance. Rudimentary contract management. Manual systems and processes.	5 to 20% margin. PS becoming a profit center but still immature finance and operating processes. Investment in ERP and PSA to provide financial visibility. May not have real-time visibility or BI. Standard Library of Contracts and Statements of Work.	20 to 30% margin. PS operates as a tightly managed P&L. Standard methods for resource mgmt., time & expense mgmt., cost control & billing. In depth knowledge of all costs at the employee, sub-contractor & project level. Processes in place for contract management, legal and pricing decisions.	PS generates > 20% of overall company revenue & contributes > 30% margin. Well-developed finance and operations processes and controls. Systems have been implemented for CRM, PSA, ERP and BI. IT integration and real-time visibility. Systems have been implemented for contract management, legal and pricing decisions.	> 30% margin. Continuous improvement and enhancement. High profit. Integrated systems. Real-time visibility. Global with disciplined process controls and optimization. Completely integrated financial, CRM, resource management, contracts and pricing systems, processes and controls.

Source: Service Performance Insight, February 2017

As shown in Table 143, in 2016 almost all financial metrics trended up except net profit. Financial metrics improved in several important areas, particularly, revenue per employee, which increased from $157K in 2015 to $163K in 2016. Annual revenue per billable consultant, backlog and achievement of revenue and margin targets also improved. Other KPIs which improved included project margins for both time and materials and fixed price contracts as well as subcontractor margins.

Rising leading indicators portend solid performance in 2017. On top of the improvements in sales pipelines outlined in the CRM chapter, project backlog improved significantly from 40.4% in 2015 to 45.6% in 2016.

Other sources of optimism arise from fewer invoices that must be redone due to client issues or inaccuracies; and lower amounts of discretionary non-billable expense per employee. Yet with all this good news, reported earnings before income tax declined in 2016. This drop in net profit can be attributed primarily to independents who reported net income dropped from 13.6% to 11.5%. By geography, the steepest decline in net income was reported by Asia-Pacific , moving from 17.2% in 2015 to 11.8% in 2016. The Americas also reported a profit decline while EMEA reported improvement.

Table 143: Finance and Operations Pillar 5-year trend

Key Performance Indicator (KPI)	2012	2013	2014	2015	2016
Annual revenue per billable consultant (k)	$206	$193	$197	$198	$205
Annual revenue per employee (k)	$168	$155	$167	$157	$163
Quarterly revenue target in backlog	43.3%	45.0%	48.4%	40.4%	45.6%
Percent of annual revenue target achieved	91.2%	89.9%	90.5%	91.4%	92.1%
Percent of annual margin target achieved	87.7%	88.2%	87.0%	89.4%	90.1%
Revenue leakage	4.04%	4.17%	4.05%	4.20%	4.30%
% of invoices redone due to error/client rejections	2.2%	2.1%	2.3%	2.6%	2.2%
Days sales outstanding (DSO)	44.7	44.1	43.4	43.8	44.6
Quarterly non-billable expense per employee	$1,266	$1,392	$1,443	$1,908	$1,579
% of billable work is written off	3.20%	3.00%	3.10%	3.00%	2.60%
Executive real-time wide visibility	**3.37**	**3.57**	**3.58**	**3.32**	**3.51**
Profit (EBITDA)	**16.8%**	**11.4%**	**13.2%**	**15.5%**	**14.2%**

Source: Service Performance Insight, February 2017

The impact of effective planning and budgeting

An effective planning and budgeting process that enlists and enfranchises the collective intelligence and vision of the firm is one of the most powerful tools in the executive handbook. The best performing organizations have moved from reactive to proactive planning. Real-time visibility and analysis have transformed decision-making from tactical to strategic. With the assistance of powerful planning and analysis tools, planning does not have to be a dreaded once-a-year, laborious process. It can become a fluid, collaborative, all-year-long process that facilitates input and cooperation across all functions and levels. With the right tools, managers at all levels are empowered to analyze business performance, conduct their own root cause analysis and take immediate action before it is too late.

Each year organizations should devote time to reenergizing their vision and strategies as they plan the upcoming year's business. The business planning process can be a valuable catalyst for growth and profit. Enlightened firms use the planning process to sharpen vision; align leadership; reevaluate and improve go to market and sales strategies; discuss new and better ways to motivate the workforce and streamline processes and systems.

For many people-based organizations, annual planning has become an empty ritual. Firms often waste too much time and energy reliving past failures instead of exploring new avenues for growth. Done right, instead of a necessary evil, business planning can open up fresh new ideas and facilitate playing to strengths rather than shoring up weaknesses. The best-of-the-best project and service-focused organizations each year find new and better ways to do the things they love to do – and are especially good at – while minimizing the hassles and tedium of repeating the things that hold them back or waste precious time and resources.

Before embarking on a planning and budgeting exercise, SPI has explored some of the reasons why organizations fail to deliver their desired results. Our experience has shown that when things go wrong, it most often starts at the top and then cascades downward throughout the organization, ultimately showing up in lackluster financial performance with poor predictability. Eliminating the root causes of dysfunction and inefficiency goes a long way toward driving organizational success. Common issues:

- Δ ***Unclear strategy*** – lack of clarity around target markets, target clients and why we win. Inability to capitalize on market opportunities due to lack of alignment, lack of employee engagement or leadership and cultural issues. No leverage to drive repeat sales, limited competitive differentiation, poor sales, marketing and service delivery execution.
- Δ ***Lack of alignment –*** unclear service charters – particularly a problem for embedded service organizations – with conflict between driving revenue and margin versus helping the overall company achieve its objectives of market expansion and client adoption.
- Δ ***Silos*** – exist in all companies – they usually occur in the choppy waters between groups or functions where responsibility and accountability are blurry. A classic example… who is responsible for driving new service revenues – is it sales or delivery? How can disconnected processes and poor handoffs be improved?
- Δ ***Reactive not proactive*** – planning is seen as a necessary evil with finance-imposed tops down targets combined with grudging business unit participation. The planning process itself is either overly burdensome with endless rounds of manual spreadsheet inputs or chaotic and reactive. Managers have no ability to analyze and recalibrate to take advantage of changing market conditions leading to missed targets and a demoralized workforce.
- Δ ***Rearview mirror instead of focused on best growth alternatives*** – because the planning process is reactive and manual, business unit leaders and finance executives must rely on past business performance rather than being able to spot trends and take advantage of them in real-time. Business units are often working from stale data from disparate systems and tools.
- Δ ***Poor financial performance*** – All of the above factors – lack of strategic clarity, poor alignment, silos, and of out-of-date information contribute to reactive, rearview mirror business forecasting and planning. The net result is revenue and margin below targets, poor forecasting accuracy, unpredictability and high levels of risk.

The Planning and Budgeting Maturity Model

Service Performance Insight has extended its industry-leading Professional Service Maturity Model™ to focus on advancing maturity in planning and budgeting. The Planning and Budgeting Maturity Model™ provides a view of the transformational power of shifting planning from reactive, heroic and painful to become a core competence leading to renewal and growth (Table 144). In this maturity model planning and budgeting moves from ad hoc, reactive and opportunistic to visionary, agile and innovative. Effective planning processes can serve as a catalyst for leadership alignment with a focus on priority improvement areas to bring the business forward.

Table 144: Planning and Budgeting Maturity Model™

	Level 1	Level 2	Level 3	Level 4	Level 5
	Ad Hoc, Opportunistic, Heroic and Reactive	**Piloted, Experimental, Pockets of Excellence**	**Deployed, Basics in Place for All Key Elements**	**Institutionalized, in the Company DNA / Fabric**	**Visionary, Agile, Innovative, Continuous Renewal and Improvement**
People	Budgeting and planning is considered a necessary evil. Tops down, reactive, silo'ed. Business ignores targets, no feedback processes or ability to modify based on changes. **Limited commitment and accountability.**	Starting to see the need to incorporate business units in planning and budgeting. Finance-driven. **Discrete functions starting to collaborate, participate and take accountability for planning.**	Starting to align corporate vision and strategy to business planning. Goals and measurements in alignment. Real-time measurements and controls. **Business is accountable for planning, goal setting and achievement.**	Budgeting and planning becomes a core competence – driving critical business decisions, goals and growth. Collaborative, business-driven. **Business is committed to planning and achievement.**	Budgeting and planning is fully automated & reflects & capitalizes on changing market dynamics. Fluid, flexible, collaborative based on fact-based decisions. Able to spot trends in real-time. **Business is enfranchised.**
Processes	Planning is a painful nuisance. No consistent budgeting and planning processes. **Ad hoc, reactive.**	Planning is reactive but tolerated. Starting to align business processes, systems, measurements and controls. **Piloting streamlined processes. Pockets of excellence**	Planning has become a powerful catalyst to drive alignment and growth. **Proactive, integrated planning process incorporates & consolidates real-time information**.	Planning process has become core to driving strategy, alignment and collaboration across the business. **Optimized systems, tools, processes.**	Fully automated global planning and budgeting process, systems and tools continually monitor, measure and take advantage of shifting business priorities.
Systems	Budgeting and planning by spreadsheet. Manual, inconsistent, error prone. Limited investment in systems and tools. **Reactive, rearview mirror.**	Starting to invest in systems for major processes – ERP, CRM and PSA. Piloting CPM applications. **IT and Finance-centric.**	Fully integrated information infrastructure including CPM applications for budgeting, planning and performance management. **Business centric.**	Fully integrated and optimized information infrastructure with powerful, easy-to-use management tools. **Mobile, agile**.	Global, integrated, optimized information infrastructure provides high levels of management visibility and control. Able to capitalize on emerging trends. **Optimized.**

Source: Service Performance Insight, February 2017

Survey results

The following section reviews and analyzes 2017 PS Maturity™ benchmark results from 416 participating professional services organizations. In this section SPI Research analyzes 39 finance and operations key performance measurements that are critical to attaining superior financial performance.

Table 145 compares the finance and operations key performance indicators by the type of organization and by region. This year, embedded service organizations (ESOs) reported substantially more revenue per consultant and employee than independents. Independents delivered much larger projects but had lower backlog. Employee productivity improved in 2016. Revenue per consultant increased slightly from $198,000 to $205,000 while revenue per employee increased from $157,000 to $163,000. Across the board, EMEA reported the most significant improvement in all major metrics, but still continues to trail the Americas in financial performance and profit. Asia has reported the greatest fluctuations in net profit achievement moving from 13.1% in 2014 to 17.2% in 2015 and now 11.8% in 2016.

Table 145: Finance and Operations KPIs by Organization Type and Geographic Region

Key Performance Indicator (KPI)	2015	2016	ESO	PSO	Americas	EMEA	APac
Annual revenue / billable consultant (k)	$198	$205	$214	$200	$220	$152	$213
Annual revenue / employee (k)	$157	$163	$170	$159	$177	$121	$150
Quarterly revenue target in backlog	40.4%	45.6%	50.9%	42.8%	46.7%	44.6%	38.8%
% of annual revenue target achieved	91.4%	92.1%	91.7%	92.4%	91.6%	92.6%	95.4%
% of annual margin target achieved	89.4%	90.1%	89.7%	90.3%	89.6%	91.4%	90.8%
Revenue leakage	4.20%	4.30%	5.08%	3.88%	4.48%	3.84%	3.98%
Invoices redone (reject or client)	2.6%	2.2%	2.6%	2.1%	2.0%	2.7%	2.7%
Days sales outstanding (DSO)	43.8	44.6	45.4	44.2	46.1	41.6	39.8
Qtr. non-billable expense per emp.	$1,908	$1,579	$1,710	$1,511	$1,570	$1,370	$2,204
% of billable work is written off	3.00%	2.60%	3.11%	2.33%	2.74%	2.03%	2.90%
Executive real-time visibility	3.32	3.51	3.49	3.52	3.57	3.37	3.37
2016 Net Profit (EBITDA)		**14.2%**	**20.1%**	**11.5%**	**14.5%**	**13.6%**	**11.8%**
2015 Net Profit Comparison		**15.5%**	**20.9%**	**13.6%**	**16.3%**	**11.9%**	**17.2%**

Source: Service Performance Insight, February 2017

Across the benchmark, average net profit (Earnings before Interest, Taxes, Depreciation and Amortization) declined from 15.5% compared to 14.2%. Embedded PSOs saw net profit decline slightly from 20.9% to 20.1%. Independents experienced a more significant decline from 13.6% to 11.5%. By geography, profit was down in the America's and APAC but up appreciably in EMEA from 11.9% to 13.6%.

Backlog is always a very important KPI. Backlog increased across the board from 40.4% to 45.6%, a sure sign of prosperity ahead. The Americas reported the strongest backlog at 46.7%. Backlog increased for the first time in four years in APac (from 45.8% in 2013 to 41.3% in 2014; 30.3% in 2015 and now 38.8% in 2016. Time will tell whether the recent surge in U.S. and European stocks will continue or whether anemic GDP performance will dampen stock market exuberance. SPI predicts steady revenue growth but margins will be under increased pressure due to rising employment costs caused by protectionism and chaotic political leadership.

Non-billable expense per employee declined in 2016. Excessive non-billable expense is a danger signal directly related to poor cost management and ineffective business development processes. Embedded PSOs decreased non-billable expense per employee; they spent $1,710 per consultant per quarter in 2016 compared to $2,088 in 2015. Independents appear to have gotten a handle on discretionary spending as they reduced non-billable quarterly employee expense from $1,826 in 2015 to $1,511 in 2016. Lower discretionary spending directly impacts bottom-line net profit.

Table 146 compares finance and operations KPI's by organization size. Mid-size firms from 31 to 300 PS employees experienced lower profits while profits improved for very small and very large organizations. Organizations from 300 to 700 consultants reported the strongest backlog at 52.9%. Smaller organizations did the best job of curtailing write-offs. The largest firms reported the highest non-billable expense for their employees. Best KPIs are shaded in green, worst in pink.

Table 146: Finance and Operations KPIs by Organization Size

Key Performance Indicator (KPI)	Under 10	10 - 30	31 – 100	101 - 300	301 - 700	Over 700
Annual revenue per billable consultant (k)	$177	$219	$205	$208	$204	$199
Annual revenue per employee (k)	$167	$177	$159	$161	$164	$145
Quarterly revenue target in backlog	38.5%	43.2%	47.2%	47.0%	52.9%	45.5%
% of annual revenue target achieved	90.8%	90.3%	90.7%	96.1%	93.8%	93.1%
Percent of annual margin target achieved	92.3%	88.1%	89.8%	90.5%	95.8%	89.0%
Revenue leakage	2.82%	4.68%	3.81%	5.71%	3.43%	4.35%
Invoices redone due to error/client reject.	0.8%	2.0%	1.9%	3.1%	2.5%	3.9%
Days sales outstanding (DSO)	32.0	41.3	44.9	50.1	50.8	49.5
Qtr. non-billable expense per employ.	$1,500	$1,730	$1,446	$1,615	$1,197	$1,919
% of billable work is written off	1.92%	2.80%	2.27%	3.36%	2.68%	2.37%
Executive real-time wide visibility	3.61	3.84	3.46	3.42	3.75	2.84
2016 Net Profit (EBITDA)	**23.0%**	**15.7%**	**11.8%**	**12.8%**	**12.8%**	**21.5%**
2015 Net Profit Comparison	**14.3%**	**14.2%**	**14.2%**	**14.1%**	**11.7%**	**NA**

Source: Service Performance Insight, February 2017

Tables 147 and 148 show financial results by vertical market. Embedded software PS reported the highest net profit of 23.6%. Only two other verticals reported higher profits year over year: architects and engineers and staffing firms. Accountancies, VARS and other PS reported the highest revenues per consultant. SaaS PSOs have reversed the profit slide we saw in 2012 and 2013. SaaS organizations saw profit decline from 25.9% in 2012 to 4.3% in 2013; a slight improvement was shown in 2014 to 7.8%; significant improvement in 2015 to 25.7% and continued strong performance in 2016 at 19.4%. This is an important KPI to watch, as many organizations are turning to the cloud for their information infrastructure.

The SaaS PS profit swings are a direct result of shifting PS charters within cloud companies. As these firms rely on annuity subscription revenue, the PS emphasis has shifted to "customer adoption" meaning many embedded SaaS PSOs now deliver a lot of free consulting to ensure customers are really using the software so they will renew their contracts and buy more seats.

Table 147: Finance and Operations KPIs by Vertical Service Market

Key Performance Indicator (KPI)	IT Consult.	Software	Mgmt. Consult.	Arch./ Engr.	SaaS	Mgd. Serv.	Hard. & Netwrk.
Annual revenue per billable consultant (k)	$205	$215	$197	$184	$188	$213	$192
Annual revenue per employee (k)	$165	$171	$159	$149	$151	$113	$158
Quarterly revenue target in backlog	45.8%	54.3%	37.7%	38.8%	51.3%	15.0%	49.2%
% of annual revenue target achieved	93.2%	93.1%	90.0%	94.0%	92.0%	90.0%	95.0%
% of annual margin target achieved	92.0%	90.9%	87.9%	87.0%	88.8%	77.5%	98.3%
Revenue leakage	3.66%	5.44%	2.96%	5.22%	4.52%	6.13%	3.00%
Invoices redone due to error/client reject.	2.3%	2.9%	1.1%	2.9%	2.5%	5.8%	1.6%
Days sales outstanding (DSO)	41.9	46.1	36.1	60.0	40.6	38.8	44.0
Qtr. non-billable expense per employee	$1,281	$1,734	$1,507	$1,823	$1,417	$1,063	$1,600
% of billable work is written off	2.24%	3.00%	1.61%	3.04%	3.03%	2.63%	3.90%
Executive real-time wide visibility (1 to 5)	3.57	3.37	3.81	3.20	3.53	3.20	3.33
2016 Net Profit (EBITDA)	**10.4%**	**23.6%**	**11.5%**	**13.3%**	**19.4%**	**9.4%**	**30.7%**
2015 Net Profit Comparison	**13.3%**	**19.9%**	**12.2%**	**11.2%**	**25.7%**	**15.6%**	**32.3%**

Source: Service Performance Insight, February 2017

Table 148: Finance and Operations KPIs by Vertical Service Market

Key Performance Indicator (KPI)	R&D	VAR	Acct.	Advert. (Marcom)	Staff.	Other PS
Annual revenue per billable consultant (k)	$220	$227	$233	$169	$131	$239
Annual revenue per employee (k)	$160	$186	$115	$156	$113	$184
Quarterly revenue target in backlog	49.0%	42.7%	37.0%	57.0%	50.0%	42.3%
% of annual revenue target achieved	95.0%	88.2%	90.8%	86.0%	92.5%	89.8%
Percent of annual margin target achieved	98.0%	85.5%	78.0%	91.0%	92.5%	90.3%
Revenue leakage	5.60%	5.46%	5.25%	2.80%	8.00%	4.28%
Invoices redone due to error/client reject.	2.5%	1.8%	1.3%	1.4%	2.5%	1.9%
Days sales outstanding (DSO)	55.0	53.6	56.0	49.0	47.5	46.6
Qtr. non-billable expense per employ.	$2,200	$1,458	$2,708	$1,000	$1,063	$2,422
% of billable work is written off	2.90%	4.38%	3.50%	2.90%	1.13%	2.59%
Executive real-time wide visibility	3.20	3.75	3.20	4.00	3.00	3.47
2016 Net Profit (EBITDA)	**11.8%**	**11.7%**	**20.6%**	**13.0%**	**7.0%**	**14.3%**
2015 Net Profit Comparison	**N/A**	**20.1%**	**20.9%**	**14.7%**	**3.4%**	**14.4%**

Source: Service Performance Insight, February 2017

Bill Rates (taken from SPI's 2015 Global Pricing Report)

SPI's PS Global Pricing Report is a large and comprehensive PS pricing study based on pricing information provided by 140 organizations representing almost 12,000 consultants worldwide. The study provides analysis of list price and realized bill rates across a broad range of PS verticals, geographies and job levels. It provides analysis of pricing strategies: time and materials; fixed price and shared risk with an unprecedented view of PS workforce distribution and composition by industry segment.

Table 149 provides a glimpse of the pricing information provided in the 2015 PS Global Pricing Report. Based on the weighted average across all job categories, the typical PS organization in this study was comprised of approximately 104 billable people. Management comprises 13% of the workforce, project management 16%, business consultants 29% and technical consultants 42% respectively. The majority of the work, billable hours and revenue is produced by business consultants and technical consultants. Both business consultants and technical consultants work on-site approximately 50% of their time.

Table 149: Bill Rate Summary – All PS Markets and Geographies

Role	Level	No. of People in the role	% billable work on site	Target Annual Billable Hrs.	Published Hourly Bill rate	Realized Hourly Bill rate	Disc.
Management	VP / Executive Management	2.7	17.9%	706	$271	$235	13.5%
	Director	3.9	21.8%	785	242	213	11.8%
	Manager	7.2	25.4%	879	202	176	12.9%
Project Management	Program Manager	5.2	48.0%	1,368	200	174	12.8%
	Senior Project Manager	4.5	46.0%	1,472	202	177	12.4%
	Project Manager	6.5	42.8%	1,505	190	164	14.1%
Business Consulting	Principal Business Consult.	6.0	50.6%	1,450	232	196	15.6%
	Sr. Business Consultant	11.0	49.0%	1,519	189	169	10.8%
	Business Consultant	13.8	47.9%	1,512	173	149	14.0%
Technical Consulting	Solution Architect	9.5	46.9%	1,391	205	178	12.9%
	Senior Technical Consultant	15.2	53.6%	1,563	194	168	13.2%
	Technical Consultant	19.1	47.7%	1,566	167	146	13.0%
Total	**Weighted Average**	**104.4**	**41.3%**	**1,363**	**$202**	**$175**	**13.1%**

Source: Service Performance Insight, 2015 PS Global Pricing Report

Based on SPI's 2015 PS Global Pricing report, bill rates reached their highest level in 2008 and then subsided as the economy stalled and moved into a prolonged recession

Steps Taken to Improve Profitability

For the sixth year in a row SPI Research asked "What steps will your organization take to improve profitability"? For the first time, "improving our solution portfolio" rose to the top of the list of. PSOs are becoming keenly aware of the need to constantly evaluate and anticipate shifting market dynamics. The Best-of-the-Best have invested in "Chief Strategy Officers" either in the guise of a dedicated strategy group or as a key role of the executive team. They constantly conduct market research and stay abreast of shifting technology trends, investing not in where the ball currently is but on where they think it is going to be. This constant attention to portfolio expansion into hot new growth areas manifests in "first mover advantages" and allows them to develop skills and references in anticipation of where the market is going.

A critical component of market expansion is not only anticipating where the market is going but having the courage to hire and develop solutions in advance of demand. "Improving hiring and ramping" is the second-most chosen improvement priority. "Reducing non-billable time", "improving billable utilization" and "Improving methods and tools" are also improvement priorities.

SPI's research demonstrates the powerful impact integrated business solutions can have on productivity and profit. It is remarkable that 20% of surveyed organizations still have not invested in Professional Service Automation. 45% have not yet invested in Human Capital Management applications. Both of these application areas should make the short list for improving profitability. Business applications should be a component of any plan to reduce non-billable administrative time. It is shocking how many PSOs still rely primarily on spreadsheets for resource management, project accounting, forecasting and analysis.

Table 150: Steps Taken to Improve Profitability Comparison: 2015-2016

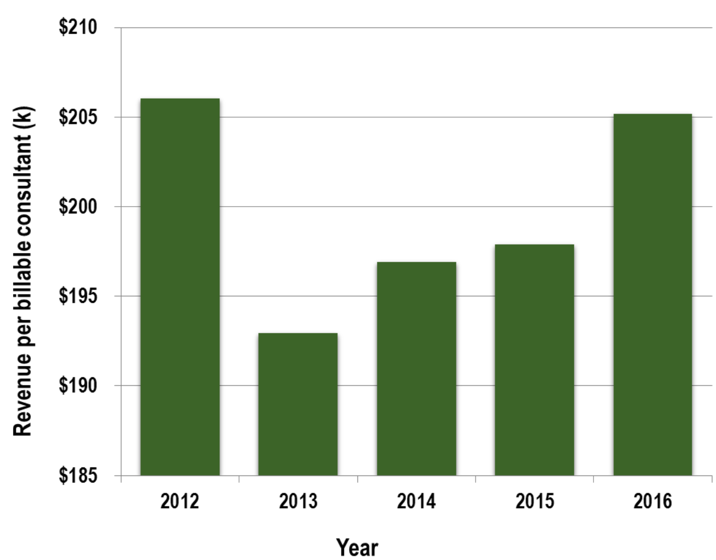
Key Performance Indicator (KPI)	2015	2016	▲
Improve solution portfolio	3.78	4.14	8.7%
Improve hiring and ramping	3.85	4.11	6.3%
Reduce non-billable time	3.83	4.08	6.1%
Improve utilization	3.78	4.04	6.4%
Improve methods and tools	3.85	4.04	4.7%
Increases rates	3.85	4.01	4.0%
Improve marketing effectiveness	3.52	3.79	7.1%
Improve sales effectiveness	3.78	3.76	-0.5%

Source: Service Performance Insight, February 2017

Annual Revenue per Billable Consultant

Annual revenue per billable consultant depicts the service organization's total revenue divided by the number of billable

Figure 73: Revenue per Billable Consultant Five-year Trend



Source: Service Performance Insight, February 2017

consultants. Alternatively, this metric is derived by multiplying the consultant's average bill rate times billable hours. Revenue per consultant provides an indication of consultant productivity; the likelihood the firm will be profitable is foretold by the labor multiplier. SPI Research considers revenue per billable consultant to be one of the most important KPIs, but it must be viewed in conjunction with labor cost. Revenue per billable consultant should minimally equal 1.5 times the fully loaded cost of the consultant.

Table 151: Impact – Revenue per Billable Consultant

Revenue per Billable Consultant	Survey Percent	Revenue Growth	Pipeline	Billable Util.
Under $100k	6.1%	5.3%	156%	65.0%
$100k - $150k	17.1%	9.3%	162%	69.2%
$150k - $200k	26.1%	9.1%	170%	71.0%
$200k - $250k	25.5%	9.5%	226%	69.5%
$250k - $300k	13.9%	11.9%	201%	71.4%
Over $300k	11.3%	6.0%	206%	72.6%
Total/Average	**100.0%**	**9.0%**	**190%**	**70.2%**

Source: Service Performance Insight, February 2017

Revenue multipliers of three and higher are typical for engineering and architecture firms while a labor multiplier greater than three is standard in management consulting and legal professional services.

Billable consultant revenue yield is a strong predictor of PS profit. Average consultant revenue production hit its zenith in 2012 at $206K, now after three years of lackluster performance it has risen to $205K. Simple math shows a $1,000 increase in revenue produced by each of the 200,000 consultants represented in this benchmark means overall revenue could have increased by $200 million for the 416 firms in this study.

Annual Revenue per Employee

This calculation looks at the overall revenue yield for all PS employees – both billable and non-billable. Annual revenue per employee is similar to annual revenue per billable consultant; it divides total PS revenue by the total number of employees. It includes both billable and non-billable headcount. Revenue per employee is a powerful indicator of the overall profitability of the firm. If the average cost per employee is known, profit can be estimated by comparing cost per employee to revenue per employee. Also, like revenue per consultant, this KPI is highly correlated with profitability, utilization and bill rates.

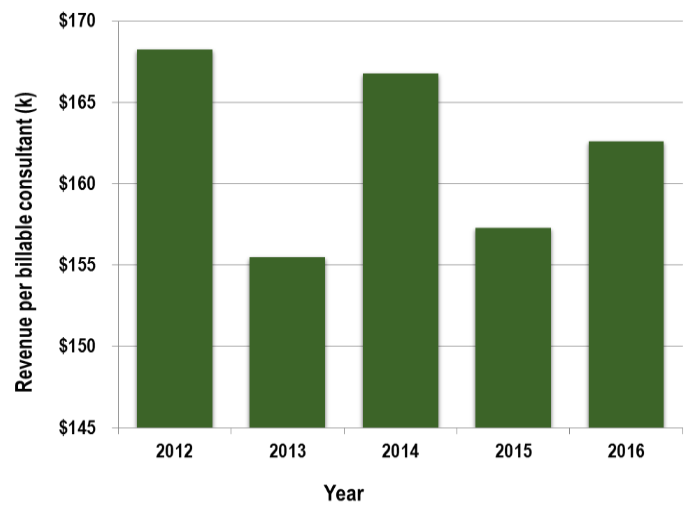
Table 152: Impact – Annual Revenue per Employee

Revenue per Employee	Survey Percent	Billable Utilization	Revenue/ Consultant	EBITDA
Under $100k	16.5%	67.5%	$118	11.3%
$100k - $150k	25.7%	67.9%	171	14.6%
$150k - $200k	31.5%	71.9%	215	13.3%
$200k - $250k	15.9%	72.2%	261	16.6%
$250k - $300k	6.7%	71.1%	311	14.0%
Over $300k	3.7%	74.2%	350	17.7%
Total/Average	**100.0%**	**70.2%**	**$205K**	**14.0%**

Source: Service Performance Insight, February 2017

PSOs with a high percentage of non-billable employees have lower annual revenue per employee. Revenue per employee is very important in determining the appropriate size and financial health of the organization. Based on the high cost of talented consulting staff, SPI Research believes this figure should be close to two times the fully loaded cost per person to maintain strong financial viability.

Figure 74: Revenue per Employee Five-year Trend



Source: Service Performance Insight, February 2017

If the organization achieves an acceptable revenue yield per billable consultant but is below the benchmark for revenue per employee, this is an indication of excessive non-billable overhead. Figure 74 shows revenue per employee improved in 2016. Since both revenue per consultant and per employee trended up in 2016 but net profit declined the explanation must be based on increased costs. The percentage of non-billable headcount declined from 30% in 2015 to 25% in 2016, so that is not the answer. Discretionary spending also declined. Income statement analysis shows the net income decline is primarily due to more pass-through revenue which produced lower margins than direct labor revenue.

Backlog

Quarterly revenue backlog is the amount of already sold (booked) business in backlog (ready to execute) divided by forecasted quarterly revenue. Backlog represents "fuel in the tank"; it improves an organization's ability to grow and increases the accuracy of financial forecasts. Some organizations measure backlog as the amount of already sold work plus the amount of work from a factored sales forecast. ***Increasing backlog levels are a clear indication of future growth.*** Backlog is one of the most powerful leading indicators. Product-focused organizations have more problems with backlog as they frequently sell a "bank of hours" with the product sale which may never be consumed. It is a good idea to frequently "scrub" backlog to determine whether booked deals can actually be delivered in the current quarter. If they cannot, this "shadow" backlog should not be counted. Typically, if backlog is not consumed (delivered) within a year it should be written off or removed from the revenue forecast as it is unlikely the client will actually use the consulting time they have been sold.

This year the quarterly revenue target in backlog was 45.6%; 12% higher than the 40.4% reported in 2015. Both independents and embedded PS organizations reported higher backlogs this year. Independent service providers had values 16% lower than embedded services organizations (42.8% versus 50.9%). Higher backlogs were also reported by all geographies. Organizations from the Americas had the highest (46.7%) quarterly revenue target in backlog, while those from APac had the lowest

(38.8%). Backlog increased for all size organizations. Organizations with 300 to 700 employees had the highest (52.9%) backlog, while those with fewer than 10 employees had the lowest (38.5%). SPI Research found marketing and advertising agencies showed the highest backlog (57%), while managed service providers showed the least (15%).

Table 153: Impact – Quarterly Revenue Target in Backlog

Quarterly Revenue Target in Backlog	Survey Percent	Annual Revenue Growth	Rev. Per Consultant	Sales Pipeline
Under 20%	16.8%	4.7%	$168	138%
20% - 40%	23.1%	10.4%	213	187%
40% - 50%	15.2%	5.1%	192	190%
50% - 60%	16.8%	5.5%	210	175%
60% - 70%	10.4%	15.0%	230	236%
Over 70%	17.7%	13.4%	$205	230%
Total/Average	**100.0%**	**8.8%**	**$168K**	**190%**

Source: Service Performance Insight, February 2017

Table 153 compares the quarterly revenue target in backlog to other key performance indicators. As one might expect higher backlog is an indication of future demand and produces better financial metrics. This table shows that backlog and the size of the sales pipeline are highly correlated. PSOs with backlog of greater than 60% showed the most impressive results.

Annual Revenue Target Achieved

The annual revenue target achieved is the percentage of the annual revenue goal that is attained. PSOs create detailed annual business plans; this figure shows how accurate they are in business planning and execution. If the organization does not meet its annual revenue target it is a sure bet that the annual margin or profit target will be missed as well as most organizations plan expenses from their revenue projections. On the other hand, if the organization exceeds its revenue projections by a wide margin this may result in quality issues, staff burnout and potentially client satisfaction issues because the organization is understaffed to meet demand.

This year the percentage of annual revenue target achieved was the highest ever reported in this benchmark at 92.1%. The five-year average is 91.2%. Independents 92.4% of their target revenue, ESOS achieved slightly less at 91.7% but 2016 performance was better than 2015 performance for both groups. Organizations from APAC had the highest (95.4%) percent of annual revenue target attainment, while those from the Americas had the lowest (91.6%) but all geographies reported higher percentages of revenue target attainment. Organizations with 100 to 300 employees had the highest (96.1%) percent of annual revenue target attainment, while those with between 10 and 30 employees had the lowest (90.3%). SPI Research found architects and engineers showed the highest percent of annual revenue target attainment (94%), while marketing and advertising agencies showed the least (86%).

As Table 154 shows there is a direct correlation between achieving revenue targets, revenue growth and on-time delivery. PSOs that exceeded their revenue goals produced higher margins, higher revenue growth and superior billable utilization. There is also a strong positive correlation between meeting annual revenue targets and profitability, assuming revenue and profit targets are set appropriately. SPI Research also found organizations who achieved their revenue targets had lower attrition rates, reflecting financial stability and the organization's ability to reward performance and reinvest in the business. Complex revenue accounting rules have negatively impacted revenue forecasting.

Table 154: Impact – Percentage of annual target revenue achieved

Percentage of annual target revenue achieved	Survey Percent	Revenue Growth	Billable Utilization	Rev. per Consult
Under 80%	15.7%	5.1%	64.9%	$204
80% - 90%	24.0%	4.0%	71.0%	182
90% - 100%	36.3%	8.6%	71.5%	212
100% - 110%	16.9%	14.0%	70.3%	219
Over 110%	7.1%	21.6%	74.6%	225
Total/Average	**100.0%**	**4.79**	**70.3%**	**$206K**

Source: Service Performance Insight, February 2017

Annual Margin Target Achieved

The annual margin target achieved, similar to the annual revenue target achieved, is the percentage of the annual profit goal which was attained. SPI Research measures revenue and margin target attainment to calibrate the accuracy of annual business plans. Even if PSOs don't accurately measure other benchmark metrics, they usually do know if they achieved their targets or not. Target attainment is important from a planning and investment perspective. If the organization does not meet its margin goals it might have to scale back future spending, potentially limiting growth.

The percentage of annual margin target achieved was slightly higher (90.1% vs. 89.4%) in 2016, and 1.4% higher than the past five-year's survey average (88.9%). Independent service providers had values 1% higher than embedded services organizations (90.3% vs. 89.7%). SPI Research found organizations from EMEA had the highest (91.4%) percent of annual margin target achieved, while those from the Americas had the lowest (89.6%). Organizations with 300 to 700 employees had the highest (95.8%) percent of annual margin target achieved, while those with between 10 and 30 employees had the lowest (88.1%). SPI Research found hardware and networking showed the highest percent of annual margin target achieved (98.3%), while managed service providers showed the least (77.5%).

Table 155: Impact – Percentage of Annual Target Margin Achieved

Percentage of annual target margin achieved	Survey Percent	Revenue Growth	Revenue/ Consult.	Project Margin
Under 80%	20.6%	3.6%	$183	32.0%
80% - 90%	26.8%	6.9%	204	36.1%
90% - 100%	32.7%	10.0%	201	35.7%
100% - 110%	13.7%	13.3%	229	39.7%
Over 110%	6.2%	14.8%	229	37.8%
Total/Average	**100.0%**	**8.6%**	**$205K**	**35.7%**

Source: Service Performance Insight, February 2017

Perhaps one of the most important gauges of financial maturity is the ability to consistently achieve annual margin targets. Consistently the percentage of firms who are able to achieve their margin targets is less than the percentage of firms who are able to achieve their revenue targets. Only 19.9% of survey respondents achieved 100% or more of their annual margin target! Table 155 compares the percentage of annual target margin achieved to other key performance indicators. This KPI shows organizations improve financially as they meet their margin targets.

Revenue Leakage

Revenue leakage refers to revenue that has been earned but is lost before it can be realized. Causes of revenue leakage include billing errors, time the firm is unable to bill for product or project delivery issues and incorrect statements of work or misquotes.

Table 156: Impact – Revenue Leakage

Revenue Leakage	Survey Percent	On-time Delivery	Revenue /Billable Consult. (k)	% of Invoices redone
Under 2%	40.1%	84.0%	$216	1.4%
2% - 5%	32.7%	77.1%	202	2.1%
5% - 10%	17.6%	75.4%	200	3.6%
Over 10%	9.6%	64.0%	184	4.1%
Total/Average	**100.0%**	**78.3%**	**$205**	**2.3%**

Source: Service Performance Insight, February 2017

Revenue leakage is difficult to determine in many cases, making it a "silent killer" of profitability, as in many instances organizations don't even realize the revenue has not been billed, making it a very difficult figure to calculate. It is also a barometer for overall operational efficiency, as PSOs with higher levels of revenue leakage reported lower utilization, lower EBITDA and poorer on-time project delivery than organizations that better managed contracts, capturing hours and expenses and billing. Average reported revenue leakage this year was 4.3% in 2016 compared to 4.2% in 2015. Independent service providers had less revenue leakage than embedded service organizations.

Invoices Redone due to Errors or Client Rejections

Invoices rejected for whatever reason dip into profit, as the PSO must finance the debt incurred while still delivering the service. Some PSOs do not consider invoices that have to be redone due to

inaccuracies or client rejections in their DSO calculation – they probably should. If expectations are properly set

Table 157: Invoices Redone due to Errors or Client Rejections

Invoices Redone due to Errors or Client Rejections	Survey Percent	Days Sales Outstand. (DSO)	Revenue per Employee (k)	EBITDA
None	11.0%	36.1	$178	13.9%
Under 1%	35.5%	41.1	$167	18.5%
1% - 3%	30.3%	45.2	$157	11.2%
3% - 5%	14.7%	46.3	$155	12.7%
5% - 10%	5.5%	54.7	$150	17.8%
Over 10%	3.1%	72.2	$165	4.8%
Total/Average	**100.0%**	**44.3**	**$163**	**14.5%**

Source: Service Performance Insight, February 2017

and time and expense accurately reported, ideally no invoice should be rejected. Invoicing problems tend to be systemic and emanate from the inaccurate capture of time and expense information; unclear statements of work; lack of approved change orders; inaccurate billing and exceeding pre-determined spending limits.

Days Sales Outstanding (DSO)

Days Sales Outstanding (DSO) is still one of the most important KPIs for financial executives. It reflects the importance of accurately producing invoices and efficiently collecting payment. DSO is also a powerful measurement of client satisfaction, strong operating controls and client credit-worthiness.

Table 158: Days Sales Outstanding (DSO)

Days Sales Outstanding (DSO)	Survey Percent	Revenue / Billable Consult. (k)	Revenue / Employee (k)	EBITDA
Under 30 days	18.4%	$178	$148	19.5%
30 - 50 days	50.5%	209	$167	12.9%
50 - 70 days	22.6%	214	$157	13.6%
70 - 100 days	6.2%	193	$159	15.1%
Over 100 days	2.3%	200	$182	13.6%
Total/Average	**100.0%**	**$203**	**$161**	**14.4%**

Source: Service Performance Insight, February 2017

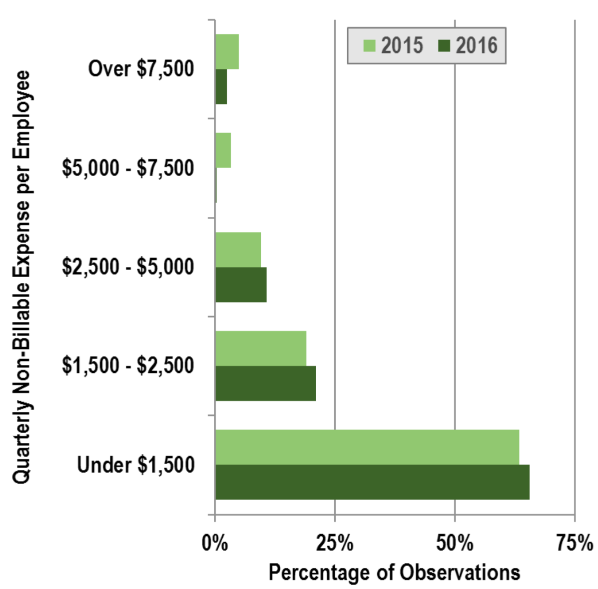
This year the average DSO was 44.6 days, slightly higher than the 43.8 days reported in 2015 and the five-year average of 44.1%.

Quarterly Non-Billable Expense per Employee

Quarterly non-billable expense per employee shows how well PSOs manage employee expenses not related to billable work. Ideally, this metric is minimized, but there are always expenses due to travel, training, IT and business development that cannot be billed.

The quarterly non-billable expense per employee declined in 2016 to $1,579 down considerably from the high-water mark in 2015 of $1,908. The five-year average is $1,599. Excessive non-billable employee expense is usually a symptom of poor or ineffective business expense policies. It may also be a symptom of runaway business development expenses with non-essential personnel wasting valuable time and money chasing non-qualified opportunities. These figures are still below pre-recession discretionary spending of more than $3,000 per employee. Common causes of high non-billable

Figure 75: Quarterly Non-Billable Expense per Employee



Source: Service Performance Insight, February 2017

discretionary spending are high business development and training expenses or employee expense misuse.

Percentage of Billable Work Written-Off

Inaccurate invoicing, improperly accounting for time, project overruns and other project-related issues force many PSOs to write-off billable work, which naturally hurts profits. The formula is simple. The more work written off, the lower the firm's profit. The differential is significant. Obviously, no firm wants to write-off billable hours as doing so implies clients were not satisfied with some aspect of the work. However, to accomplish this feat requires significant effort to clearly define requirements and deliverables; assure work is scoped correctly; projects are delivered on-time and within budget; and invoices are accurate. SPI Research believes this initiative is well worth the effort.

The percentage of billable work that was written off in 2016 was 2.6%, lower than the 3% reported in 2015. Table 159 shows a clear correlation between increased levels of work being written off and lower performance in terms of on-time delivery and other financial metrics. For those organizations who wrote off more than 10% of their work, billable utilization, on-time delivery and net profit were compromised.

Table 159: Percentage of Billable Work Written-Off

Percentage of Billable Work Written-Off	Survey Percent	Billable Utilization	On-time Delivery	EBITDA
None	11.7%	70.0%	85.0%	14.8%
Under 1%	26.8%	73.0%	82.6%	14.9%
1% - 3%	34.2%	70.5%	78.5%	12.2%
3% - 5%	15.7%	69.7%	74.8%	15.2%
5% - 10%	8.0%	66.6%	74.8%	19.3%
Over 10%	3.7%	64.6%	55.4%	7.0%
Total/Average	**100.0%**	**70.5%**	**78.6%**	**14.1%**

Source: Service Performance Insight, February 2017

Real-Time Visibility

Real-time information visibility is one of the most important management tools. SPI Research asked survey respondents whether their executives had real-time visibility into all business activities (sales, service, marketing, finance, etc.). The rewards are significant for organizations who have integrated systems and management dashboards that allow them to pinpoint issues and spot trends in real-time. Executives who have real-time visibility run companies that are much more profitable than those that are not as they are able to take advantage of changing market conditions.

This year's survey found executive real-time wide visibility was 6% better (3.51 vs. 3.32) in 2016, when compared to 2015. Real-time visibility is a very important key performance indicator. As Table 160 shows, organizations that have comprehensive visibility can make the decisions necessary to grow and achieve high levels of profitability. And it is not for just those KPI's listed in this table, it is for a majority of the other metrics tracked by SPI Research as well.

Table 160: Real-Time Visibility

Real-Time Visibility	Survey Percent	Revenue Growth	Bid-to-Win ratio	Revenue / Billable Employee (k)	Revenue / Employee (k)	EBITDA
1 - None	3.6%	2.5%	3.83	$168	$123	15.3%
2 - Minimal	12.5%	8.7%	4.79	174	146	19.9%
3 - Some	31.0%	7.3%	4.74	208	156	13.1%
4 - Substantial	34.9%	9.1%	4.94	219	178	13.6%
5 - Comprehensive	17.9%	12.3%	5.10	206	168	14.6%
Total/Average	**100.0%**	**8.8%**	**4.85**	**$205**	**$164**	**14.5%**

Source: Service Performance Insight, February 2017

Extended real-time visibility is only attained through application integration. "Extended" means information that flows across departments and functions, so that employees have a more complete picture of operations, and can make quick, fact-based decisions. Without real-time visibility, decision-making can be subjective and reactive which hurts business performance. SPI Research believes these results help organizations justify expenditures in IT to provide the systems and tools they need to visualize, monitor and control the business.

Income Statements

In this section SPI Research analyzes income statements by organizational type and size. Inputs were:

Revenue

- Δ ***Direct gross PS revenue***: Directly delivered PS revenue (not including re-billable travel)
- Δ ***Indirect gross revenue***: (revenue from subcontractors, outside resources)
- Δ ***Pass-thru revenue***: (revenue from hardware, software, materials, etc.)
- Δ ***Reimbursable travel and expense revenue***: (includes re-billable travel and expense revenue)

Expense

- Δ ***Direct Labor expense***: (does not include fringe benefits, vacation, sick time or overhead)
- Δ ***Fringe benefit expense***: as a percentage of direct labor (for healthcare, pensions, vacation and sick pay)
- Δ ***Subcontractor/outside consultant expense***: cost of subcontractors and outside consultants
- Δ ***Pass-thru expense***: (expense for hardware, software, materials, etc. that can be billed)
- Δ ***Billable travel and business expense***: business expenses that can be billed to clients
- Δ ***Non-billable travel and business expense***: business expenses that cannot be billed to clients
- Δ ***Recruiting expense***: (includes recruiting headcount, fees and signing bonuses)

- Δ ***Sales expense***: (includes sales headcount, bonus and non-reimbursable sales expense)
- Δ ***Marketing expense***: (includes marketing headcount, bonus and marketing program expense)
- Δ ***Education, training and certification expense***: (includes the cost of training and certification)
- Δ ***PS IT expense***: supporting the IT infrastructure (personnel, applications, networking, etc.)
- Δ ***General and Administrative***: non-billable headcount, general and administration costs, facilities, headcount and overhead

Despite improvements in most financial metrics, profits declined in 2016 when compared to 2015 (Table 161). Overall net profit declined 8.4% from 15.5% in 2015 to 14.2% in 2016. The primary catalyst for lower PS sector profit came from an unexpected source. Firms increased the percentage of top line revenue derived from subcontractor and pass-through revenue (the resale of hardware, software and other products). This pass-through revenue had a negative impact on overall profit as these revenue sources produced less margin than direct labor margins. At the same time, non-billable travel and marketing expense increased, further eroding net profit margins.

Table 161: Income Statement Comparison

Income Statement Revenue & Expense	2015	2016	Delta
Benchmark Surveys	549	416	
REVENUE			
Direct gross PS revenue	82.5%	80.0%	-3.0%
Indirect gross revenue (subcontractor)	8.8%	10.7%	21.6%
Pass-thru rev. (hardware, software, mat.)	4.4%	6.4%	45.5%
Reimbursable Travel & Expense revenue	4.3%	3.0%	-30.2%
Total Revenue	**100.0%**	**100.0%**	
EXPENSES			
Direct labor expense	41.1%	41.1%	0.0%
Fringe benefit percentage of direct labor	6.3%	6.1%	-3.2%
Subcontractor/outside consultant expense	7.8%	8.7%	11.5%
Pass-thru equipment expense	2.4%	4.0%	66.7%
Billable travel and business expense	3.2%	3.3%	3.1%
Non-billable travel expense	1.9%	2.1%	10.5%
Total recruiting expense	1.0%	0.8%	-20.0%
Sales expense	5.3%	5.1%	-3.8%
Marketing expense	2.0%	2.1%	5.0%
Education/training/certification expense	1.4%	1.1%	-21.4%
PS IT expense	2.4%	1.8%	-25.0%
All other G&A expense	9.5%	9.8%	3.2%
Total Expense	**84.5%**	**85.8%**	**1.5%**
EBITDA	**15.5%**	**14.2%**	**-8.4%**

Source: Service Performance Insight, February 2017

By sector, Independents are largely responsible for the overall profit decline as they saw their profits fall from 13.6% to 11.5%. In their income statements, embedded service organizations typically do not pay for much of the infrastructure borne by the independents, and therefore their profitability is typically higher. By geography, EMEA reported a surge in profit from 11.9% to 13.6% while the Americas and Asia-Pacific reported a decline. For the first time since 2008, the Eurozone kept pace with the US economy, with the jobless rate falling to a 7-year low and GDP growth of 1.7% compared to 1.6% for the US.

Table 162: Income Statement by Organization Type and Embedded Service Type

Key performance indicator (KPI)	Survey	ESO	PSO	Americas	EMEA	APac
Surveys	416	144	272	306	81	29
REVENUE						
Direct gross PS revenue	80.0%	80.6%	79.7%	82.4%	77.0%	64.5%
Indirect gross revenue (subcontractor)	10.7%	9.2%	11.3%	9.4%	14.4%	14.1%
Pass-thru rev. (hardware, software, mat.)	6.4%	5.5%	6.8%	5.0%	5.9%	18.9%
Reimbursable Travel & Expense revenue	3.0%	4.7%	2.3%	3.1%	2.7%	2.6%
Total Revenue	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
EXPENSES						
Direct labor expense	41.1%	39.8%	41.7%	41.2%	42.5%	37.2%
Fringe benefit percentage of direct labor	6.1%	6.2%	6.1%	6.8%	5.1%	1.7%
Subcontractor/outside consultant expense	8.7%	7.6%	9.1%	8.0%	11.0%	9.2%
Pass-thru equipment expense	4.0%	3.9%	4.1%	3.8%	2.2%	9.5%
Billable travel and business expense	3.3%	4.7%	2.6%	3.3%	3.2%	2.9%
Non-billable travel expense	2.1%	2.2%	2.1%	2.0%	1.4%	4.2%
Total recruiting expense	0.8%	0.9%	0.7%	0.7%	1.2%	0.5%
Sales expense	5.1%	5.4%	5.0%	4.8%	6.4%	5.4%
Marketing expense	2.1%	1.7%	2.3%	1.9%	3.0%	2.7%
Education/training/certification expense	1.1%	1.1%	1.0%	1.0%	1.3%	1.3%
PS IT expense	1.8%	1.8%	1.7%	1.6%	2.2%	2.8%
All other G&A expense	9.8%	4.5%	12.1%	10.3%	6.9%	10.6%
Total Expenses	**85.8%**	**79.9%**	**88.5%**	**85.5%**	**86.4%**	**88.2%**
2016 EBITDA	**14.2%**	**20.1%**	**11.5%**	**14.5%**	**13.6%**	**11.8%**
2015 EBITDA Comparison	**15.7%**	**20.7%**	**13.6%**	**16.3%**	**11.9%**	**17.3%**

Source: Service Performance Insight, February 2017

The smallest organizations typically report the best profitability primarily because many of them operate as virtual businesses, with limited G&A spending on facilities and management. They also do not report significant recruiting expenses as their overall hiring is fairly limited and they cannot afford to invest in junior personnel or interns, preferring to make senior hires who can be immediately billable. Mid-size organizations from 31 to 300 consultants reported a year over year profit decline while smaller and larger organizations reported profit improvement.

Table 163: Income Statement by Organization Size

Key performance indicator (KPI)	Under 10	10 - 30	31 – 100	101 - 300	301 - 700	Over 700
Surveys	39	86	128	89	25	49
REVENUE						
Direct gross PS revenue	81.6%	82.3%	79.5%	80.2%	81.8%	68.5%
Indirect gross revenue (subs.)	11.3%	11.0%	10.4%	9.4%	12.7%	12.3%
Pass-thru rev. (hw, sw, mat.)	5.9%	3.8%	7.0%	7.8%	1.9%	13.8%
Reimbursable Travel & Expense	1.2%	2.9%	3.1%	2.6%	3.6%	5.3%
Total Revenue	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
EXPENSES						
Direct labor expense	41.7%	39.9%	41.9%	44.1%	43.3%	25.1%
Fringe benefit % of direct labor	6.1%	4.9%	6.8%	5.7%	8.0%	4.8%
Subcontractor/outside consultant	9.0%	10.7%	8.5%	6.0%	8.9%	10.3%
Pass-thru equipment expense	3.1%	3.6%	4.0%	4.8%	0.4%	9.2%
Billable travel and business	2.3%	4.1%	2.7%	3.2%	4.5%	3.2%
Non-billable travel expense	1.1%	2.2%	1.4%	3.5%	2.6%	2.2%
Total recruiting expense	0.3%	0.6%	0.9%	0.6%	1.2%	0.7%
Sales expense	3.2%	4.8%	5.8%	5.2%	4.8%	3.8%
Marketing expense	3.2%	2.2%	2.5%	1.3%	1.3%	2.2%
Education/training/certification	2.2%	1.0%	0.9%	1.0%	1.4%	0.8%
PS IT expense	1.1%	1.2%	1.6%	1.9%	2.3%	4.3%
All other G&A expense	3.6%	9.1%	11.0%	10.0%	8.6%	11.8%
Total Expenses	**77.0%**	**84.3%**	**88.2%**	**87.2%**	**87.2%**	**78.5%**
2016 EBITDA	**23.0%**	**15.7%**	**11.8%**	**12.8%**	**12.8%**	**21.5%**
2015 EBITDA Comparison	**14.3%**	**14.2%**	**14.1%**	**14.0%**	**11.8%**	**N/A**

Source: Service Performance Insight, February 2017

In this year's survey, SPI Research received profitability metrics from most of the vertical markets (*Only markets with sufficient income statement data are shown*). For the organizations with plenty of observations (Table 164) SPI Research found that both SaaS and software service providers reported high profitability. The two main independent groups, IT and management consultancies, reported lower profits year over year, primarily due to higher levels of subcontractor and reimbursable travel expense revenue (typically billed at cost). IT consultancies also increased G&A spending from 9.3% of revenue to 11.6% in 2016 while management consultancies reduced G&A spending from 13.8% to 11.2% of revenue.

This year we received significantly more completed surveys from architects and engineers. With economic improvement, this sector has seen profit improvement year over year as well as revenue growth however architects and staffing firms reported the highest level of G&A overhead in the benchmark at 17.1% and 29.9% respectively. Both groups must reduce G&A spending to improve profitability.

Table 164: Income Statement by PS Market Vertical

Key performance indicator (KPI)	IT Consulting	Software	Management Consulting	Architects / Engineers	SaaS
Surveys	133	57	46	35	41
REVENUE					
Direct gross PS revenue	76.1%	85.0%	81.5%	86.9%	74.1%
Indirect gross revenue (subs.)	12.4%	8.1%	13.8%	7.8%	16.1%
Pass-thru rev. (hw, sw, mat.)	9.9%	2.4%	1.7%	3.3%	4.0%
Reimbursable Travel & Expense	1.6%	4.5%	3.1%	2.0%	5.8%
Total Revenue	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
EXPENSES					
Direct labor expense	42.1%	40.6%	41.3%	37.5%	38.1%
Fringe benefit % of direct labor	5.7%	6.3%	6.2%	7.8%	6.4%
Subcontractor/outside consultant	9.1%	6.6%	10.2%	9.1%	8.2%
Pass-thru equipment expense	4.9%	1.3%	1.0%	4.3%	3.1%
Billable travel and business	2.2%	5.2%	3.6%	2.1%	4.9%
Non-billable travel expense	2.1%	2.0%	1.5%	2.4%	3.0%
Total recruiting expense	0.7%	0.7%	1.0%	0.4%	0.9%
Sales expense	5.9%	3.8%	6.0%	1.7%	7.4%
Marketing expense	2.5%	0.9%	3.7%	1.3%	3.7%
Education/training/certification	1.0%	1.3%	1.3%	0.9%	1.2%
PS IT expense	1.7%	2.2%	1.5%	2.1%	1.7%
All other G&A expense	11.6%	5.3%	11.2%	17.1%	1.9%
Total Expenses	**89.6%**	**76.4%**	**88.5%**	**86.7%**	**80.6%**
2016 EBITDA	**10.4%**	**23.6%**	**11.5%**	**13.3%**	**19.4%**
2015 EBITDA Comparison	**13.3%**	**19.9%**	**12.2%**	**11.1%**	**25.8%**

Source: Service Performance Insight, February 2017

As usual, embedded services organizations showed higher levels of profitability as they typically have a lower cost structure than independents because they do not pay the full burden for corporate sales, marketing, IT and G&A expense. Although 2016 showed solid revenue growth combined with solid profitability, global economic uncertainties and geopolitical tensions may derail GDP growth. Anemic GDP growth in the US will likely be the long term result of Trump's trade and immigration policies. Now is the time for PS executives to carefully revisit their 2017 business plans to ensure sales pipelines are robust enough to support growth forecasts. A careful eye must be turned to scrubbing backlog and reviewing overhead and discretionary spending. We could be in for a lot of turbulence in 2017.

Table 165: Income Statement by PS Market Vertical

Key performance indicator (KPI)	Managed. Services	VAR	Accounting	Advertising (Marcom)	Staffing
Surveys	8	14	9	9	5
REVENUE					
Direct gross PS revenue	61.2%	77.5%	85.7%	81.8%	100.0%
Indirect gross revenue (subs.)	8.0%	6.1%	7.1%	7.6%	0.0%
Pass-thru rev. (hw, sw, mat.)	26.8%	13.0%	0.0%	6.2%	0.0%
Reimbursable Travel & Expense	4.0%	3.3%	7.1%	4.4%	0.0%
Total Revenue	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
EXPENSES					
Direct labor expense	32.5%	50.2%	41.5%	52.9%	60.0%
Fringe benefit % of direct labor	2.4%	4.6%	8.1%	3.9%	1.0%
Subcontractor/outside consultant	1.3%	6.2%	7.1%	5.2%	0.0%
Pass-thru equipment expense	28.1%	9.0%	0.8%	5.1%	0.0%
Billable travel and business	7.8%	1.8%	8.7%	3.9%	0.0%
Non-billable travel expense	3.1%	0.5%	4.9%	1.8%	0.6%
Total recruiting expense	0.5%	1.2%	1.8%	0.9%	0.0%
Sales expense	3.4%	4.5%	1.8%	6.3%	1.5%
Marketing expense	2.0%	1.8%	0.7%	0.3%	0.0%
Education/training/certification	0.3%	0.6%	1.6%	1.3%	0.0%
PS IT expense	4.0%	0.5%	2.3%	1.5%	0.0%
All other G&A expense	5.4%	7.4%	0.0%	3.9%	29.9%
Total Expenses	**90.6%**	**88.3%**	**79.4%**	**87.0%**	**93.0%**
2016 EBITDA	**9.4%**	**11.7%**	**20.6%**	**13.0%**	**7.0%**
2015 EBITDA Comparison	**15.6%**	**20.0%**	**20.8%**	**14.6%**	**3.4%**

Source: Service Performance Insight, February 2017

13. 2017 Professional Services Maturity™ Model Results

SPI Research has spent the past decade developing and improving the Professional Services Maturity™ Model. Over 15,000 billable professional services organizations use the model to benchmark and improve organizational performance. With over 2,500 billable services organizations (1,500 over the past five years) participating over the past ten years, SPI Research has further refined the model to improve its accuracy.

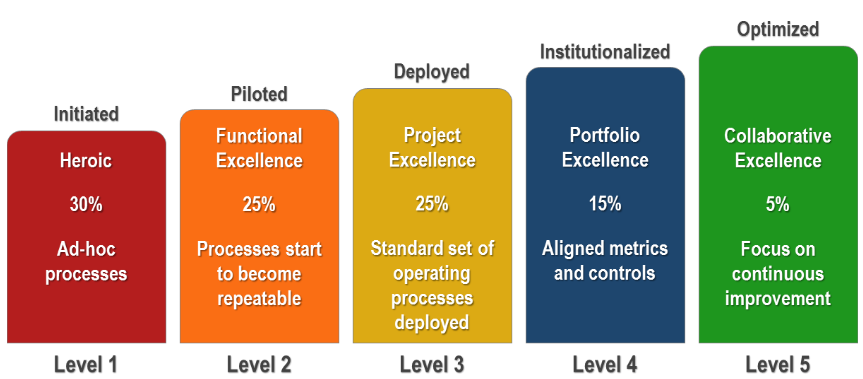
416 firms participated from September through November of 2016 representing over 200,000 consultants worldwide, continuing to make this the most comprehensive study of the global PS industry. While most the participating organizations are headquartered in North America, the firms surveyed have employees distributed globally, and SPI Research believes it to be an accurate representation of the global PS industry. SPI Research clients continue to use the model to develop, prioritize and implement performance gains.

In this chapter, SPI Research reveals the analytic basis of the model and gives insight into our survey techniques. For this year's model, SPI Research used the current database of 416 firms surveyed over in 2016.

Maturity Levels

The maturity rating for each Service Performance Pillar varies based on the performance of the organization. In each of the five performance pillars, every firm operates at one of the five maturity levels (Figure 76):

Figure 76: Professional Services Maturity Model™ Levels



Source: Service Performance Insight, February 2017

- ∆ **Level 1 (Initiated – 30% of the respondents)**: In the initial stages, the focus of the organization is primarily on client acquisition and building a reference base. To accomplish this core mission, the organization must recruit and hire excellent staff. Therefore, at Maturity Level 1 the priority focus areas are Customer Relationships and Human Capital Management.

- **Level 2 (Piloted – 25% of the respondents)**: The organization is becoming a profit center so focus is still on client relationships but human capital and finance and operations have become more important as the organization moves from a cost center to a profit center.
- **Level 3 (Deployed – 25% of the respondents)**: The organization has now deployed core operating processes in all five service performance pillars. At this point, the organization must continue to accentuate Human Capital Alignment but the key focus has shifted to Finance and Operations and Service Execution. The organization must start to consider strategy and vision to ensure the focus is on the right clients, markets and competition. At this level, the organization must have deployed standard business processes across all dimensions.
- **Level 4 (Institutionalized – 15% of the respondents)**: At this level, the organization must start optimizing across all dimensions. However, maintaining and growing service revenue and margin is of paramount importance. The organization must start developing a differentiated approach to clients with vertical and horizontal market segments and geographies so a focus on the Client Relationship pillar is critical.
- **Level 5 (Optimized – 5% of the respondents)**: The organization has achieved “black belt” status in all functional areas. Processes are fully developed, deployed and institutionalized. The organization is now developing comprehensive measurement, monitoring, and optimization processes across all pillars.

While every organization should strive to attain Maturity Level 5 in each of the five service performance pillars, some areas are more important than others depending on the overall maturity of the company or its market. For instance, early in the life of a professional services organization client relationships are far more important than profitability because without clients there can be no future. Over time, client relationships always remain important, but the organization must equally focus efforts on other Pillars. To be a truly optimized organization, the firm must aspire to reach Level 5 in all dimensions.

Model Improvements

Each year SPI Research makes modifications to improve the model based on additional surveys, its own analysis, and feedback from PSOs that use the model. This year, there are several changes to the model that should improve its accuracy and validity. These changes include:

- Project Portfolio Management (PPM) solutions were eliminated.
- The total annual number of active closed clients were added. This KPI is another way to compare the relative size of projects sold and delivered.
- The total number of project completed during the year was added.
- The total non-billable business development/sales support hours were added. More often than ever, consultants are tasked with *both* the sale and delivery of services.

Also, some of the various financial KPIs were moved into their more natural pillars. For instance, project margin was moved to the Service Execution Pillar to increase its relevance and weighting to successful project delivery.

As is the case each year, not every question is included in the PS Maturity™ model. Demographic information is not part of the PS Maturity™ model but helps PS executives better compare their organizations to the benchmark.

Model Inputs

SPI Research conducts correlation analysis between the questions to determine what, if any, impact each of the key performance indicators (KPIs) have on each other. The questions were then rated by relative importance from 0.0 (unimportant) to 1.0 (very important) for each of the KPIs. Each question was assigned a maximum value based on the answer given and the weight of the question. At the bottom of each of the following tables is the total maximum value possible in each maturity rating. Here is a synopsis of the SPI Research methodology:

- ***Factor***: Respondent's unique answers to the given question. Some questions are answered within a range to reduce the time to complete the survey.
- ***Weight***: The relative value of the question as compared to others. Questions were weighted from 0.0 to 1.0 depending on the overall importance of the question. Questions with a weight of 1.0 are the most important in determining organizational maturity.
- ***Pillar Correlation***: SPI Research incorporates a correlation coefficient for each question to all pillars, reflecting the inter-relationship that exists between different functions and key performance metrics within PSOs. Correlations range from -1.0 to 1.0 depending on the KPI's negative or positive impact on performance.
- ***Maximum Score***: The maximum score for each question is determined by multiplying the normalized value of the question by its weight. Scores are normalized on a scale from 1 to 100 and then assigned a Maturity Level based on a score from 1 to 5.

The minimum scores for each Pillar are summarized in Table 166. The maximum value is 100, which means the organization is at the "Optimized" level. By design, maturity scores are relative to the size of the survey with approximately 5% of organizations designated at Level 5 (Optimized) in any given pillar.

Table 166: Minimum Normalized Performance Pillar Scores

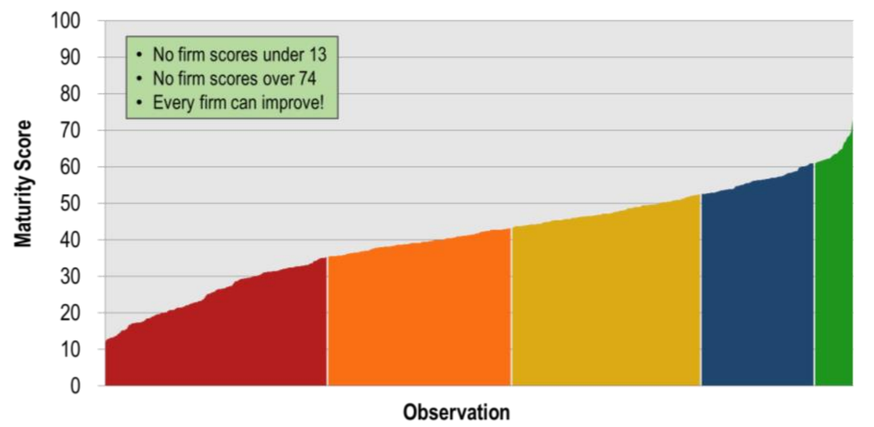
Pillar	Level 1	Level 2	Level 3	Level 4	Level 5	Maximum
Leadership (LE)	0.0	49.48	56.88	63.81	71.25	100.0
Client Relationships (CR)	0.0	41.38	47.39	55.99	63.66	100.0
Human Capital (HC)	0.0	45.28	53.90	59.32	66.61	100.0
Service Execution (SE)	0.0	41.21	48.97	55.98	63.25	100.0
Finance & Operations (FO)	0.0	35.33	43.24	52.48	60.92	100.0

Source: Service Performance Insight, February 2017

Moreover, SPI Research assumes 15% perform at Level 4; 25% perform at Level 3; 25% perform at Level 2 and the other 30% perform at Level 1. These scores are slightly different from the 2015 report in most pillars as SPI Research annually adjusts scores based on economic conditions and the feedback received over the past year.

What might be interesting to readers of this report is that when analyzing the normalized scores (1 to 100) in each Pillar it shows that no firm scores a “0”, meaning the lowest level of performance, nor does any firm score a “100”, meaning the highest level. Figure 77 highlights the scores for the Finance and Operations Pillar. It shows that no firm scored over 74, meaning there is always room for improvement, despite how well the organization runs!

Figure 77: Normalized Finance & Operations Pillar Scores



Source: Service Performance Insight, February 2017

SPI Research works with services organizations to improve performance in each Pillar. The analysis highlights how the firm scored relative to its peers (for example, management consultancies with between 100 and 300 employees) and the overall survey. This graphical display highlights areas where the organization performs poorly and where additional attention should be paid to produce improvements. After over five-years of engagements using the Professional Services Maturity Model™ SPI Research recommend firms look first at the areas performing poorly (**red**), as opposed to further improving areas where it already does well (**green**). Figure 78 highlights one such example.

Figure 78: Increase performance by focusing on low-performing KPIs

Finance & Operations Performance Indicator	Consulting Rus	Peer Average	Survey Average	Level 1	Level 2	Level 3	Level 4	Level 5
Annual revenue per billable consultant (k)	$200k - $250k	$188	$205					
Annual revenue per employee (k)	$150k - $200k	$151	$163					
Quarterly revenue target in backlog	40% - 50%	51.3%	45.6%					
Percent of annual revenue target achieved	80% - 90%	92.0%	92.1%					
Percent of annual margin target achieved	Under 80%	88.8%	90.1%					
Revenue leakage	5% - 10%	4.5%	4.3%					
% of inv. redone due to error/client rejections	3% - 5%	2.5%	2.2%					
Days sales outstanding (DSO)	70 - 100 days	41	45					
Quarterly non-billable expense per employee	Under $1,500	$1,417	$1,579					
% of billable work is written off	5% - 10%	3.0%	2.6%					
Executive real-time wide visibility	4 - Substantial	3.53	3.51					

Source: Service Performance Insight, February 2017

Model Results

SPI Research analyzed each of the 416 participating firms to minimize any bias when comparing PSOs of different sizes. Table 167 shows most organizations in each size category have similar averages for each pillar.

Table 167: Average Service Maturity by PSO Size (People)

		Average Maturity Level				
Organization Size (people)	Count	LE	CR	HC	SE	FO
Under 10	39	2.67	2.41	2.41	2.31	2.33
10 – 30	86	2.50	2.43	2.62	2.56	2.45
31 – 100	128	2.45	2.52	2.42	2.51	2.45
101 – 300	89	2.30	2.29	2.24	2.28	2.35
301 – 700	25	2.64	2.84	2.76	2.60	2.80
Over 700	49	2.06	2.14	2.20	2.16	2.27
Total	**416**	**2.42**	**2.42**	**2.42**	**2.42**	**2.42**

Source: Service Performance Insight, February 2017

For the first time, this year's model showed the largest firms scored the lowest, while those just below (301 – 700 employees) scored the highest in most areas. Leadership tends to go down as firms grow, as communication typically suffers. In the past, those firms with under 30 showed the lowest performance on average, as many are new firms without the structure, standardization and breadth to enhance business systems and processes, a prerequisite for maturity. However, in this year's survey the opposite was the case.

Table 168: Average Service Maturity by PSO Type

		Average Maturity Level				
Organization Size (people)	Count	LE	CR	HC	SE	FO
Embedded	144	2.40	2.48	2.38	2.38	2.51
Independent	272	2.43	2.38	2.43	2.44	2.37
Total	**416**	**2.42**	**2.42**	**2.42**	**2.42**	**2.42**

Source: Service Performance Insight, February 2017

SPI Research analyzed the maturity of PSOs by type (embedded vs. independent), and the results are summarized in Table 168. This year's results show that embedded service organizations scored better in only two of the five performance pillars, which was also the case in last year's survey. In the past embedded organizations exhibited greater maturity in all five dimensions. Embedded PSOs are typically early adopters of business applications as they receive the benefit of sophisticated IT investments while independents tend to forego solution acquisition in favor of business development and marketing expenditures. This year independents were superior in leadership, talent management and service delivery.

Table 169 shows the average level of maturity for each of the performance pillars by select vertical markets. When comparing vertical markets with more than 20 surveys, professional services within SaaS organizations scored highest in three of the five pillars compared to IT and management consultancies.

Table 169: Average Service Maturity by Vertical Market

		Average Maturity Level				
Market	**Count**	**LE**	**CR**	**HC**	**SE**	**FO**
Accounting	9	1.89	1.89	1.78	1.78	1.56
Advertising (Marcom)	9	2.33	2.00	2.22	2.44	2.11
Architecture/Engineering	35	2.11	2.00	2.17	2.03	1.97
IT Consulting	133	2.53	2.61	2.57	2.60	2.61
Managed Services/Hosting	8	1.50	1.38	1.63	1.50	1.38
Management Consulting	46	2.59	2.30	2.50	2.50	2.24
PS within HW & Networking	6	2.00	2.33	1.83	2.17	3.17
PS within SaaS company	41	2.71	2.88	2.59	2.56	2.46
PS within Software company	57	2.44	2.53	2.39	2.39	2.70
Research & Development	7	2.29	2.29	2.14	2.29	2.43
Staffing	5	2.00	2.20	2.20	2.20	2.20
Value-added Reseller (VAR)	14	2.29	2.29	2.36	2.21	2.29
Other PS	46	2.28	2.20	2.41	2.41	2.35
Total	**416**	**2.42**	**2.42**	**2.42**	**2.42**	**2.42**

Source: Service Performance Insight, February 2017

The Financial Benefits of Moving Up Levels

The PS Maturity Model™ was developed to demonstrate the importance of organizational improvement through the use of benchmarking. SPI Research believes that the importance of the maturity model is to help organizations improve ***balanced performance across the entire organization***, not just in terms of financial performance. However, if the organization is profit-motivated (which most are), increasing maturity levels do show up in significant bottom-line profit. Table 170 highlights some of the key performance indicators by maturity level, and should alone be an important reason why PS executives should looker deeper into using it to accelerate both productivity and profit.

Table 170: Key Performance Indicators (KPIs) by Maturity Levels

Key performance indicator (KPI)	Level 1	Level 2	Level 3	Level 4	Level 5
Year-over-year change in PS revenue	3.8%	5.0%	11.4%	14.6%	27.7%
Well understood vision, mission and strategy (1-5)	3.20	3.74	3.96	4.54	4.82
Confidence in PS leadership	3.38	4.00	4.22	4.63	4.95
Bid-to-Win ratio (per 10 bids)	3.88	4.51	5.08	5.71	6.43
Deal pipeline relative to quarterly bookings forecast	151%	171%	193%	228%	281%
Employee billable utilization	60.7%	68.4%	72.3%	78.8%	79.5%
Projects delivered on-time	66.0%	75.1%	82.9%	84.4%	90.9%
A standardized delivery methodology is used	67.1%	65.7%	72.6%	79.5%	81.4%
Annual revenue per billable employee (k)	$132	$181	$220	$243	$266
Annual revenue per employee (k)	$85	$145	$177	$203	$222
Project margin	25.7%	34.1%	37.5%	40.4%	42.9%
Percent of annual revenue target achieved	80.5%	87.7%	93.4%	100.5%	105.0%
Percent of annual margin target achieved	78.0%	84.9%	93.4%	96.5%	103.6%
EBITDA (Profit) %	**6.1%**	**9.8%**	**13.3%**	**17.7%**	**24.8%**

Source: Service Performance Insight, February 2017

This table shows some of the benefits in moving up levels. Virtually every one of the 173 KPIs improve as firms move up from one level to the next. Most organizations SPI Research has worked with find that improving by one maturity level annually is about all they can do. While moving up even one level can be difficult, the model shows the investment is well worth it.

The Inter-relationship of Pillars

Process improvement can both positively and negatively impact other Key Performance Indicators (KPIs) in the same Service Performance Pillar as well as the other four. Some examples include:

- Δ Bid-to-Win (*Client Relationships*) impacts margins and revenue growth (*Finance and Operations*). Winning bids might improve a PSO's sales effectiveness, but might worsen its Finance and Operations pillar due to lower profit margins if heavy discounting is required to win the bids.
- Δ Leadership issues (communication, well understood vision, mission and strategy,) can impact the ability to grow (*Finance and Operations*), staffing levels (*Human Capital*) and the ability to effectively deliver projects (*Service Execution*).
- Δ If a project is delivered late (*Service Execution*) it can negatively impact relations with the client and future sales effectiveness (*Client Relationships*), revenue growth and project profitability (*Finance and Operations*).

SPI Research took these interrelationships into account when building the Professional Services Maturity Model™ (Figure 79). It adds complexity to the model, but SPI Research believes it provides a real-world balanced view that improves PSOs ability to positively enact change.

Figure 79: Key Performance Indicators (KPIs) are Correlated

Source: Service Performance Insight, February 2017

Model Conclusions

In ten years of building the Professional Services Maturity Model™ SPI Research has seen the correlation of KPIs vary from year-to-year, as the economy and competitive environment dictate how PS organizations operate. The model is an aggregate built for PSOs (both embedded and independent), different size organizations, as well as for the different vertical markets surveyed. Therefore, the results will have some type of "generic bias." PS executives who wish to have their organization compared directly to their peer group (i.e., IT Consultants with 100 to 300 employees) should contact SPI Research.

As organizations grow, they will gain greater operational efficiency and other advantages, while losing intimacy and ease of communication. Every vertical market has its own constraints, particularly in pricing strategies, in many cases limiting the ability for high levels of profitability. The key to this maturity model is for executives to hone in on their own vertical market, as well as organization size, to better determine relative performance. Service Performance Insight can further segment this information to help PS executives specifically analyze performance relative to their exact peer group. Contact SPI Research for more information on the Professional Services Maturity Model™.

14. Conclusions and Recommendations

It's hard to believe it has been 10 years! SPI Research has worked with professional services organizations from around the world to benchmark and help them understand how to improve organizational performance. Our research has led us to thousands of organizations who want facts, not opinions, to facilitate progress. The Professional Services Maturity™ Benchmark lets organizations understand how they compare to their peers, and provides clarity into where to start or continue their performance advancement initiatives.

The interest in the benchmark and maturity model has been incredible! Occasionally, a competitor comes forward to attempt to create something better, but their efforts quickly fizzle and fade. Thus far, we have been told there is no rival model in the market today. SPI Research realizes that a great part of the success is due to the willingness of professional services executives to contribute sensitive information to help the whole community get better.

Our series on the Best-of-the-Best professional services organizations shows the game-changing strategies leading organizations deploy to make life better for their clients and employees. The Best-of-the-Best executives realize they are sharing some of their "secret sauce" but are genuinely proud of the organizations they have built and happy to share their knowledge with others. We have come to understand that the great PS leaders are some of the most humble and selfless people on the planet – in equal part visionaries and teachers. At the heart of all great service organizations it is always about people and how to help them perform at their best.

Undoubtedly the Professional Services market will continue to grow faster than most. In bad years the professional services market grows, and in the great years it grows significantly. Growth is good, but sometimes the ride gets bumpy; managing growth effectively is critical to success.

The number of mergers and acquisitions within the professional services market has taken off, as leading organizations buy hot new startups to provide the seed stock from which they can grow lucrative new service lines. The fact that there are not enough highly qualified resources is behind the buying frenzy and not likely to slow down anytime soon.

The changing global economy, political unrest

2016 saw several significant chinks in the armor, as countries around the world, including the United States, looked inward and voted based on fear and protectionism. Globalization is good, but it must be managed effectively. If one segment of the population succeeds, while the other suffers, no one really wins in the end. Growth in the US and other developed countries has propelled the global economy. Knowledge-based work has been at the core of this transformation. A rising tide does lift all boats. Hopefully leaders of governments around the world will realize there is a shortage of skilled talent and let qualified workers fill those jobs, no matter where they come from.

The economy needs Professional Services! The professional services market is a catalyst for improvement and change. PSO's lead in new technology development and implementation, new green technologies, generating demand (such as in advertising) and in other areas. Simply put, professional services organizations help the global economy grow and prosper. However, professional services organizations also need to apply their own knowledge of streamlining processes to help themselves. Even when PSOs grow and prosper in the short term, it does not mean their long-term success is guaranteed. They must continually stay ahead of the market to ensure they have the right people, processes and clients to successfully navigate turbulent times.

Listen to the noise, but focus on performance improvement

The technology landscape changes fast. Increasingly, platforms make the difference. The past decade has shown significant advances in the use of information technology in the professional services market, as well as every other market. These new technologies, especially the Cloud, have helped organizations share and collaborate in real time. This proliferation of disparate cloud applications is approaching a breaking point. Savvy enterprises are starting to make platform decisions to reduce the number of vendors and technologies they must contend with. Platforms will be the battle field upon which the next big technology war is waged.

Visibility drives performance improvement and cloud technologies provide that visibility. The days of mountains of papers and static reports are over. A paperless working environment is now becoming a reality as smart phones can run most aspects of a business. With real-time information, decisions can be made in seconds, rather than days, weeks or even months as conditions change. Yet the speed and quantity of information can be crushing. In the near future artificial intelligence will help break through the clutter to surface the most important trends and decisions that only humans can make.

Ten years of analysis have taught us that everything in a people-based Professional Services organization is intertwined. The Professional Services Maturity Model™ was built with the assumption that each area of a professional service organization is interconnected, meaning that the performance of one group or function negatively and positively impacts other areas of the organization. As we have seen over the past decade, this is increasingly true. Functional silos and fiefdoms don't work for knowledge-based businesses. PS executives who work to create a world-class organization must not look at each individual department as an island, they must treat the organization as one organic whole, and ensure the strategy is clear and the measurements are visible and aligned.

As of this writing 2017 has just begun. While SPI Research expects volatility in the market, we also expect executives in every industry will now more than ever before depend on the advice and guidance given to them by leading consultants. No one can precisely predict the future, so having enough options available to ensure success regardless of how the market moves, will benefit PSOs significantly. Good luck over the next year!

15. Appendices

Appendix A: Acronyms Used in This Report

Table 171: Lexicon of Acronyms and Abbreviations

Acronym	Meaning
APac	Asia-Pacific
BI	Business Intelligence
BPM	Business Process Management
BPO	Business Process Outsourcing
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIO	Chief Information Officer
CRM	Client Relationship Management
DSO	Days Sales Outstanding
EMEA	Europe, Middle East, Africa
ERP	Enterprise Resource Planning
ESO	Embedded Service Organization
EVM	Earned Value Management
HCM	Human Capital Management
HR	Human Resources
ISV	Independent Software Vendor
IT	Information Technology
KPI	Key Performance Indicator
MarCom	Marketing Communication / Advertising
NAICS	North American Industry Classification System
PA	Project Accounting

Acronym	Meaning
PMI	Project Management Institute
PMO	Project Management Office
PMP	Project Management Professional
PPM	Project Portfolio Management
PS	Professional Services
PSA	Professional Services Automation
PSO	Professional Services Organization
ROI	Return on Investment
RSD	Remote Service Delivery and Collaboration
SaaS	Software as a Service
SCM	Supply Chain Management
SM	Social Media
SMAC	Social, Mobile, Analytics, Cloud
SRP	Service Resource Planning
SLA	Service Level Agreement
SLM	Service Lifecycle Management
STEM	Science, technology, math and engineering
SVC	Service Value Chain
VSOE	Vendor-Specific Objective Evidence
WBS	Work Breakdown Structure

Source: Service Performance Insight, February 2017

Appendix B: Financial Terminology

The following table contains a list of standard key performance measurement terms and definitions used in the benchmark report. The terms and definitions have been compiled from our knowledge and experience and a variety of sources including www.wikipedia.org http://www.investopedia.com and Morris, Manning and Martin, LLP. SPI Research is interested in expanding and evolving common key performance measurements, standards and definitions for Professional Service organizations. If you would like to add terms or suggest changes, your comments and suggestions will be appreciated.

Table 172: Standard Key Performance Indicator (KPI) Definitions

Term	Definition
70% utilization	~ 1,400 billable hours/year or 350 hours/quarter
Allocations	Corporate allocations refer to a company's policy of distributing the cost of shared resources, for example, facilities, healthcare, IT and Sales, General and Administrative (SG&A) costs to specific functions or departments.
Annual Billable Utilization %	Annual Billable Hours/(2080 hours – vacation and holidays) or Billable days/(260 days – 10 vacation – 10 holidays ~ 240 days)
Attrition %	Attrition % = (Voluntary + involuntary) / Total Beginning Employees
Backlog	Backlog = Bookings - Billings The total value of contract commitments yet to be executed: Total Backlog = Previous fiscal year's contracts not yet billed + Latest fiscal year's sales - Latest fiscal year's revenue
Bid Win Ratio	The ratio of successful bids (resulting in signed contracts) divided by the total number of bids or proposals issued. Bid Win ratio is a good measure of sales and marketing effectiveness because it demonstrates the organization is pursuing appropriate types of business and is able to beat its competitors.
Billings	Completed, accepted work that can been billed (T&M, Work in process, Milestone, Deliverables)
Bookings	Signed Contracts (signed PS Agreement + signed SOW + PO)
Burdened Cost	Typically employee burdened costs are the costs per employee for benefits (Healthcare, Pensions, 401K) and an apportioned cost for the employee's facility and IT usage + all discretionary expense. The difference between burdened cost and fully burdened cost is that fully burdened cost includes an allocation for corporate SG&A costs.
Capitalization	**Expensed computing equipment:** expenses (typically less than $100k) vs. capitalized (paid for over a time period). Servers for example, are typically capitalized and depreciated over a 3 year period. Capital expenditures usually refer to expenses a company makes for property, buildings or equipment. Capitalized items typically have a useful life of several years.
Cash	The value of the most liquid assets within the balance sheet. Cash equivalents are assets such as money market accounts that can be accessed quickly and are not subject to significant change. Does not include the value of accounts receivable.
Cash flow	Is the balance of the amounts of cash being received and paid by a business during a defined period of time, sometimes tied to a specific project. The timing of cash flows into and out of projects is used as input to financial models such as internal rate of return, and net present value.
Cost per person	Cost Per person = Base + Fringe (~25%) + Bonus

Term	Definition
Days Sales Outstanding (DSO)	A measure of the average number of days that it takes a company to collect revenue after a sale has been made and a bill has been issued. A low DSO means that it takes a company fewer days to collect its accounts receivable. A high DSO means that a company is selling its product to slow-paying customers and it is taking longer to collect money. Days sales outstanding is calculated as: $= \frac{\text{Accounts Receivable}}{\text{Total Credit Sales}} \times \text{Number of Days}$ OR $= \left[\frac{\text{Accounts Receivable}}{\left(\frac{\text{Total Credit Sales}}{\text{Number of Days}} \right)} \right]$ DSO is a key performance measurement of the credit-worthiness of a company's clients; a general indicator for client satisfaction and the effectiveness of the billing and collection process. DSO is reported either quarterly or annually.
Depreciation	An expense recorded to allocate a tangible asset's cost over its useful life. Because depreciation is a non-cash expense, it increases free cash flow while decreasing reported earnings.
Direct Costs	Cost incurred as a direct consequence of producing a good or service, as opposed to overhead or indirect costs.
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization. $\text{EBITDA} = \text{Revenue} - \text{Expenses (excluding tax, interest, depreciation and amortization)}$ EBITDA is essentially net Income with interest, taxes, depreciation, and amortization added back to it. EBITDA can be used to analyze and compare profitability between companies and industries because it eliminates the effects of financing and accounting decisions. However, this is a non-GAAP measure that allows a greater amount of discretion as to what is (and is not) included in the calculation. This also means that companies often change the items included in their EBITDA calculation from one reporting period to the next.
EITF	An organization formed in 1984 by the Financial Accounting Standards Board (FASB) to provide assistance with timely financial reporting. The EITF holds public meetings in order to identify and resolve accounting issues occurring in the financial world. EITF 08-01 and EITF 09-03 are scheduled to go into effect in June, 2010. These new rulings provide revenue recognition guidelines around the value of multi-element contracts which include products and services. These new rulings will allow companies to more accurately recognize revenue as services are delivered for complex multi-element contracts. They create a hierarchy of evidence to support revenue recognition including VSOE (Vendor Specific Objective Evidence), TPE (Third Party Evidence) and ESP (Estimated Selling Price).
FASB	A seven-member independent board consisting of accounting professionals who establish and communicate standards of financial accounting and reporting in the United States. FASB standards, known as generally accepted accounting principles (GAAP), govern the preparation of corporate financial reports and are recognized as authoritative by the Securities and Exchange Commission.
Fixed Costs	Fixed costs are costs that remain the same regardless of changes in the business. For example, facility lease costs remain the same for the life of the lease, regardless of the level of occupancy. If the business is expanding, the percentage of fixed costs may decrease whereas if the business is contracting, the percentage of fixed costs may increase.
Fringe Benefits	A collection of various benefits provided by an employer, which are exempt from taxation as long as certain conditions are met. Fringe benefits commonly include health insurance, group term life coverage, education reimbursement, childcare and assistance reimbursement, cafeteria plans, employee discounts, personal use of a company owned vehicle and other similar benefits.
Gross Margin	**Gross Margin = (Total Services Revenue – Expense or Cost to Deliver the Services)** The gross profit generated per dollar of services delivered. A company's total sales revenue minus its cost of goods or services sold. This dollar amount represents the gross amount of money the company generated over the cost of producing its goods or services.
Gross Margin Percentage	Gross Margin % = (Total Services Revenue – Expense or Cost of Services Delivered) / Total Services Revenue Gross Margin %= Gross Margin / Revenue
Gross Profit Percentage	A company's total sales or service revenue minus cost of goods or services sold, divided by the total sales revenue, expressed as a percentage. Gross profit and gross margin are used interchangeably.

Term	Definition
Income Statement or Profit and Loss Statement	A financial statement that summarizes the revenues, costs and expenses incurred during a specific period of time - usually a fiscal quarter or year. The statement of profit and loss follows a general format that begins with an entry for revenue and subtracts from revenue the costs of running the business, including cost of goods sold, operating expenses, tax expense and interest expense. The bottom line is net income (profit).
Labor Burdened Cost	Labor Burdened Cost per Productive Hour (or Fully-burdened Cost) (Labor Burdened Cost + gross payroll labor cost) ÷ the number of actual work (productive) hours Number of actual productive hours ÷ the total additional cost of the employee = Employee labor burden cost per productive hour
Labor Multiplier	Labor multiplier = total $ amount of labor hours billed / fully loaded (burdened) labor cost Note: a labor multiplier of 1.0 indicates a breakeven point. Any usability cost-benefit analysis should value people's time based on their fully loaded cost and not simply on their take-home salary. The cost to a company of having a staff member work for an hour is not that person's hourly rate but also includes the cost of benefits, bonuses, vacation time, facility costs (office space, heating and cleaning, computers etc.), and the many other costs associated with having that person employed. The simplest way to derive the average loaded cost of an employee is to add up all corporate or division expenses and divide by the total number of productive hours worked. Commonly, the fully loaded cost of an employee is at least twice his or her salary. This is why consultants charge so much more than regular employees: their billable hours have to cover the many overhead costs that are implicit for full-time employees. In fact, looking at common consulting rates for the kind of staff you are dealing with is a shortcut for estimating the fully loaded value of your employees' time. EXAMPLE: base rate/hour (BR)= dollar per hour pay for the staff category OH multiplier (OHM) = firm's overhead (OH) percentage + 100% Profit multiplier (PM)= profit percentage + 100% **"loaded" rate/hour** = BR X OHM X PM Base rate/hour= $45.00 per hour overhead multiplier = 135% overhead + 100% = 235% = 2.35 Profit multiplier = 10% profit + 100% = 110% = 1.1 **"loaded" rate/hour =** $45.00 X 2.35 X 1.1
Lagging Indicators	**Investopedia explains** LAGGING INDICATORS Lagging indicators confirm long-term trends, but they do not predict them. Some examples are unemployment, corporate profits and labor cost per unit of output. Interest rates are another good lagging indicator as interest rates change after severe market changes. In services, billable utilization, revenue per person and net profits are lagging indicators because they reflect changes in market conditions after the change has already occurred.

Term	Definition
Leading Indicators	A measurable economic factor that changes before the economy starts to follow a particular pattern or trend. Leading indicators are used to predict changes in the economy, but are not always accurate. In services, leading indicators are backlog and sales pipeline because they are predictors of future revenue. **What Does the** COMPOSITE INDEX OF LEADING INDICATORS **Mean?** An index published monthly by the Conference Board used to predict the direction of the economy's movements in the months to come. The index is made up of 10 economic components, whose changes tend to precede changes in the overall economy. These 10 components include: 1. The average weekly hours worked by manufacturing workers 2. The average number of initial applications for unemployment insurance 3. The amount of manufacturers' new orders for consumer goods and materials 4. The speed of delivery of new merchandise to vendors from suppliers 5. The amount of new orders for capital goods unrelated to defense 6. The amount of new building permits for residential buildings 7. The S&P 500 stock index 8. The inflation-adjusted monetary supply (M2) 9. The spread between long and short interest rates 10.Consumer sentiment
Loaded Cost per Person	Base + Fringe Benefits (~25%) + Target Variable Compensation + % Corporate and Practice Overhead allocation per person. Non-billable time (bench time) must be added to calculate the actual cost per hour of productive time.
Margin %	Margin % = (Revenue - Cost)/Revenue
Markup %	Markup % = (Revenue-Cost)/Cost For example, 60% markup = 40% margin
Measurement Utilization %	Billable Hours + Approved non-billable hours (pre-sales, Customer Satisfaction, Special Projects)/(2080 hours or 260 days - vacation and holidays)
Measurement Utilization	Measurement Utilization = (Billable Hours + Approved non-billable hours)/ (2080 hours – Vacations – Holidays) Approved non-billable hours are usually associated with presales, overtime not billed to clients, customer satisfaction resolution time, internal projects or skills training.
Net Income	A company's total earnings (or profit). Net income is calculated by taking revenues and adjusting for the cost of doing business, depreciation, interest, taxes and other expenses. This number is found on a company's income statement and is an important measure of how profitable the company is over a period of time. The measure is also used to calculate earnings per share. Often referred to as "the bottom line" since net income is listed at the bottom of the income statement. Net income is calculated by starting with a company's total revenue. From this, the cost of sales, along with any other expenses that the company incurred during the period, is removed to reach earnings before tax. Tax is deducted from this amount to reach the net income number.
Non-billable Travel	Non-billable travel expense represents travel expense which cannot be re-billed to a client. Typically consulting non-billable travel is associated with business development or training activities.
On-Target Earnings (OTE)	The typical pay structure for a salesperson is composed of a fairly low basic salary with an additional amount of commission. The package will usually be called OTE or on-target earnings, meaning that if a salesperson hits the specified target, they will be guaranteed that amount of money. A higher commission can be paid if the person performs beyond this target.
Operating Income	Operating income would not include items such as investments in other firms, taxes or interest. In addition, nonrecurring items such as cash paid for a lawsuit settlement are often not included. Operating income is required to calculate operating margin, which describes a company's operating efficiency. **Operating Income = Gross Income – Operating Expenses – Depreciation**
Operating Margin	Operating margin is a measurement of what proportion of a company's revenue is left over after paying for variable costs of service delivery such as wages and benefits. **Operating Margin = Operating Income / Net Sales** Operating Profit = (Total Service Revenue – Total cost of service delivery – Total Operating Expense)/ Total Service Revenue
Operating Profit / Margin	The amount of profit realized from a business's own operations. A ratio used to measure a company's pricing strategy and operating efficiency.

Term	Definition
Overhead Costs	Usually, fixed costs - a business cost that is not directly accountable to a particular function or product; a fixed cost such as facilities. Costs incurred that cannot be attributed to the production of any particular unit of output. The general, fixed cost of running a business such as rent, lighting, and heating expenses, which cannot be charged or attributed to a specific product or part of the work operation.
Profit Margin = Return on Sales (ROS)	The percentage of every dollar of sales that makes it to the bottom line. Profit Margin is Net Income after Tax divided by Net Sales. A ratio of profitability calculated as net income divided by revenues, or net profits divided by sales. It measures how much out of every dollar of sales a company actually keeps in earnings.
Project Margin £$€	Project Revenue – Direct Cost of project service delivery
Revenue Estimate	Revenue Estimate = Billable headcount X Billable hours X Average Bill rate X Average Utilization Rate
Revenue	Revenue = Billings that can be recognized within the time period + Re-billable travel and expense The amount of money that a company actually bills during a specific period, including sales discounts.
Revenue per person	Actual Bill Rate * Billable Hours + re-billable travel and expense
Recurring Revenue	The best revenues are those that continue year in and year out, they are often referred to as "recurring" revenue. Examples of recurring revenues are multi-year maintenance contracts and multi-year Software as Service (SaaS) subscription revenues. Temporary revenue increases, such as those that might result from a short-term promotion, are less valuable and garner a lower price-to-earnings multiple for a company.
Run Rate	How the financial performance of a company would look if you were to extrapolate current results out over a specified period of time.

Term	Definition
Revenue Recognition	http://www.mmmlaw.com/publications/article_detail.asp?articleid=103 (Selected excerpts from the article) Any business generating revenue from licensing, selling, leasing or otherwise marketing software will experience serious problems from failure to recognize the significance of the New SOP. This section summarizes the importance of revenue recognition. Revenue recognition is a fundamental component of generally accepted accounting principles (GAAP) and is a key consideration in maintaining the integrity of financial statements. The central issue is one of timing and amount : When should revenue generated in a software transaction be recognized in a software company's income statement, and in what amounts? In most cases, companies strive to recognize revenue as quickly as possible, thereby improving their financial performance. Even private software companies generally try to improve financial performance by accelerating revenues whenever possible. Before issuance of SOP 91-1 in December 1991, there was no specific guidance for recognizing revenue in software transactions. The ensuing lack of uniformity among software companies in their revenue recognition policies led to the inability of third parties to make meaningful comparisons among companies. Similarly, the New SOP is designed to provide even greater uniformity by addressing inconsistent applications of SOP 91-1 in software transactions. Basic Revenue Recognition Criteria. SOP 91-1 and the New SOP each define basic criteria that must be satisfied before revenue can be recognized. Under the New SOP if an arrangement to deliver software does not require significant production, modification, or customization of the software, then the New SOP specifies four criteria which must be met prior to recognizing revenue from a single-element arrangement or for individual elements in a multiple-element arrangement.1 These four criteria are: 1. persuasive evidence of an arrangement exists; 2. delivery has occurred; 3. the software vendor's fee is fixed or determinable; and 4. Collectability is probable. Although these basic revenue recognition criteria are substantially the same as those contained in SOP 91-1, the New SOP takes a fundamentally different approach in certain areas such as: (1) providing detailed guidelines for recognition of revenue in "multiple-element arrangements," and (2) eliminating the concept of remaining "significant vendor obligations" under SOP 91-1. Changing Sales Behavior. A software company's sales force will be critical to implementation of the New SOP. As a general rule, software companies tend to bundle software and services together in order to offer a turn-key software solution to the buyer. Additionally, the description of and the fees for the software and services being offered are typically combined. This bundling makes the sale easier for a sales representative because it makes the offering easier for the buyer to understand and it prevents the buyer from removing elements of the transaction that the buyer might not otherwise pay for if they knew the individual price for the element. However, the result of this bundling could be a deferral of revenue recognition. Therefore, many software companies will have to change the manner in which their sales personnel work in order to achieve their revenue recognition goals. Sales Force Compensation. From an internal perspective, many companies base compensation and bonus arrangements, at least in part, on recognized revenue within a specified time period. If revenue recognition policies are changed, bonus plans may be affected. With the adoption of the New SOP, benefit plans will require further examination to verify the suitability of these plans in achieving a company's objectives and motivating employees to complete all the requirements for revenue recognition as a basis for earning a bonus.
Subcontractor Margin	Subcontractor Margin = (Total subcontractor generated revenue – total subcontractor cost)/ Total subcontractor generated revenue
Variable Costs	Variable costs are costs that vary based upon usage. Training, travel and business expenses are variable, whereas costs for facilities are treated as a "fixed" cost because they do not vary based on use. Commonly variable costs may also be termed "discretionary" because management can make decisions to make or not make the expenditure.

Term	Definition
VSOE	**VSOE = Vendor-Specific Objective Evidence (accounting/contracting)** VSOE is the price established by management having relevant authority. Once a firm has established the VSOE price and officially acknowledged it as such, that price must not be expected to change prior to the introduction of that element into the marketplace. The introduction of that deliverable into the marketplace on a separate basis ought to be within a very short period of time after the VSOE price is set. Accounting firms have differing opinions on how long is too long, so make certain you are aware of your accounting firm's guidelines. Vendor Specific Objective Evidence (VSOE) is an agreed-upon value for goods and services. For service organizations, VSOE is usually established by the company's auditors based on historical bill rates or actual realized revenues from service packages. When VSOE service prices are set the effect can be very painful because the firm's auditors review past engagements to set current VSOE rates. This means if a firm's services were significantly discounted in the past the service organization will be penalized with "Past sins" when auditors calculate current VSOE rates. With software companies the accepted practice is to amortize each sale across the contract's lifetime and to apply all labor hours whether billable or not.

Source: Investopedia, Wikipedia, *Morris, Manning and Martin, LLP, a**nd Service Performance Insight, February 2017***

About Service Performance Insight

R. David Hofferberth, PE, Service Performance Insight founder, managing director and licensed professional engineer has served as an industry analyst, market consultant and product director. He is focused on the services economy, especially productivity and technologies that help organizations perform at their highest capacity.

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