



**NUCLEUS
RESEARCH**

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ROI ANALYSIS YOU CAN TRUST™

The Real ROI from SPSS

THE BOTTOM LINE

An independent assessment of SPSS customers found that 94 percent achieved a positive return on investment with an average payback period of 10.7 months. Returns were achieved through reduced costs, increased productivity, increased employee and customer satisfaction, and greater visibility. Flexibility, performance, and price were all key factors in purchase decisions.

Predictive analytics solutions take a step beyond basic business intelligence tools, using complex statistical models and algorithms as well as other data mining and analysis tools. One of the key vendors in this space, SPSS offers predictive analytic applications, data mining and text mining tools, and comprehensive statistical analysis software to support decision making processes. Key SPSS solutions include:

- Statistics. SPSS 13.0 provides data analysis with comprehensive statistics software and can be used for planning, data collecting, data management and preparation, analysis, and reporting.
- Data, text, and Web mining. SPSS Clementine, AnswerTree, LexiQuest, and NetGenesis solutions support mining of structured and unstructured data.
- Survey, market research, and data collection. SPSS statistics tools as well as its Dimensions solution and market research products support the development of survey and other market research data collection.
- Business intelligence. SPSS ShowCase Suite and SPSS Olap Hub enable online analytical processing and data mining for organizations using the IBM AS/400 platform.
- Predictive analytics. SPSS provides PredictiveMarketing, PredictiveCallCenter, Predictive Text Analytics, and Predictive Web Analytics tools enable users to measure and optimize business performance.

As is the normal process with Nucleus Real ROI reports, Nucleus reviewed the SPSS Web site, online technology publications and discussion forums, and print journals to identify companies using SPSS and then independently contacted customers to assess the results they had experienced with SPSS.

During the course of the research, SPSS became aware of Nucleus's research, and was invited to supply customer names to be included in the sample. Nucleus identified 61 customers and contacted each one:

- 16 organizations agreed to participate in Nucleus's analysis of the ROI from their SPSS deployments.

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- 45 organizations did not respond to repeated requests for participation.

Nucleus has included the data from all customers analyzed in this report.

Customers were using a broad range of SPSS solutions and a number of organizations were using more than one SPSS tool or application. Customers interviewed included public and private companies and organizations in transportation, retail, health care, education, professional and business services, and technology.

The majority of companies provided details of their deployments on condition of anonymity. Nucleus analysts contacted companies and investigated various aspects of their SPSS deployments that would impact ROI, including what technology they were using, why and when they selected SPSS, the deployment process and budget, expected and achieved benefits, expected and incurred costs, training, consulting, deployment challenges, and other issues associated with the deployment.

Ninety-four percent of customers had achieved a positive ROI from their SPSS deployment with an average payback period of 10.7 months.

Eighty-one percent of SPSS projects were deployed on time; 75 percent were deployed on or under budget.

The size of SPSS deployments varied widely, from organizations with only a few users to those with more than 1000 users. The average number of users was 118.

WHY SPSS

Most organizations considered a number of solutions before deciding on SPSS. Key reasons for choosing SPSS included:

- **Technology compatibility.** SPSS solutions could support a company's existing technology environment – or were able to interoperate with the analysis systems of partners and clients.
- **Usability.** SPSS was easier for basic users to learn, and didn't require extensive training or customization. For example, one customer said, "*The learning curve was a lot lower, and we didn't have to rely on consulting to build things.*" Another simply said, "*It was easier to use [than other solutions] and had great tech support.*"
- **Price.** Some customers found SPSS had more competitive pricing or was more flexible in delivering pricing that matched their business size and needs than competitors.
- **Flexibility.** Customers found the technology and the company was more willing to work with them to determine the best solution. For example, one customer said, "*We picked SPSS over SAS, Spotfire, and others because it allowed a lot of*

flexibility in analyzing data and it was easy to work with SPSS."

Another mentioned, *"the SPSS team bent over backwards – they were very creative in helping us figure out how we could do what we wanted to do. SAS didn't do anything of that sort."*

- Performance. Customers felt more comfortable with existing and planned functionality and solution performance. For example, one customer found the SPSS desktop functionality superior to others; another found that the technology lifecycle mapped out by SPSS was better than that of its competitors. One customer, for example, said, *"a lot of other products out there just don't have the power and reach as SPSS – we know, as we've added a number of components over the years."*

THE BENEFITS FROM SPSS

Key benefits customers achieved that contributed to a positive ROI from SPSS included reduced costs, increased productivity, improved employee and customer satisfaction, and increased visibility into operations.

Reduced Costs

A number of customers were able to identify cost savings areas using SPSS to measure performance. In some cases, even a small percentage in savings identified through predictive modeling delivered significant returns.

One retail customer was able to reduce the cost of other third party software by approximately \$35,000 a year while using SPSS to reduce shrink by .03 percent.

A telecommunications company was able to save money on promotional mailings because targeting enabled them to send 60 percent less mail – while reducing churn by .4 percent.

Increased Productivity or Reduced Head Count

Tools that reduced the time needed to analyze information and the ability for business users to do their own reporting and analysis without involving programming specialists were key drivers for increased productivity from SPSS.

Ninety-four percent of customers attributed an increase in productivity to SPSS.

In some cases, an increase in productivity translated into greater results from the same number of people or the ability to avoid hiring additional people:

- *"It takes us 9 people to do the work of what it took us 12 people to do before – and I think that's conservative."*

- *"We were able to reduce our approval process time for policies by 20 percent and cut things from 7 business days to fewer than 6."*
- *"We've added no additional staff to our department as our company has grown; if we had to do that type of reporting conventionally, the staff would have had to increase by 4 to 6 people to handle the load."*

Improved Employee and Customer Satisfaction

A number of customers also noted that the ease of use and speed of analysis with SPSS tools enabled analysts to complete their jobs with less frustration:

- *"It really put a lift in the morale of the analysts – isn't this cool that we have a great tool to work with? This contrasts with SAS and other mainframe packages that the programmers had to use, that was clunky and it took 4 to 12 hours to receive any printouts."*
- *"It has a ripple effect. It's made our agents happier and improves relationships with other agents and customer service. If you can push that much business out consistently, then you don't have to hire extra staff."*

Increased Visibility

The democratization of access to information in many cases enabled SPSS users to rapidly deliver information to decision makers for key strategic planning and other activities. Auditing capabilities also enabled users to track results and support regulatory and other requirements for record keeping:

- *"Analysts who are not trained as mainframe SAS programmers can have the ability to use point and click analytical tools so they can be more innovative, autonomous, and responsive to their clients."*
- *"Our internal clients like senior managers, directors, and vice presidents can get answers within minutes when it used to take weeks – or at least days."*
- *"It contributed to information which allowed us to be 50 percent more efficient in operations – we can measure performance by hours and minutes against standards and improve."*
- *"One of the advantages we're finding in this regulated environment is that the audit trail is included in the tool and is very helpful. We hadn't thought of that when we first started."*

KEY COST AREAS

In calculating the costs of customers' SPSS deployments, Nucleus analyzed companies' actual and projected spending on software, hardware, consulting, training, and personnel over a 3-year period.

Software

The average initial software cost associated with an SPSS deployment was \$153,300; the median was \$92,500.

Software license maintenance costs varied widely, largely because in some cases maintenance charges were negotiated to offset discounted initial software licenses. The average annual license maintenance fee paid by SPSS customers was 17.5 percent of the initial license price.

Hardware

The average hardware investment required by a customer to support an SPSS deployment was \$21,933; however, the median was \$0 because many companies didn't have to invest in any hardware.

More than half the customers interviewed were able to leverage existing hardware to support SPSS and thus didn't need to make any hardware investment.

Consulting

In many cases, the professional services provided by SPSS were included as part of the software license. The average consulting investment by SPSS customers was \$10,281, and the median was \$0.

Table 1. The Average Cost of a SPSS Deployment

<i>Initial Costs</i>		
	Average	Data Components
Software	\$153,500	Average initial license price
Consulting	\$10,281	Average standalone consulting expenditure of customers interviewed
Hardware	\$21,933	Average hardware expenditure of customers interviewed
Personnel	\$66,667	Average number of personnel months needed to deploy: 10 Assumed fully loaded cost of an employee: \$80,000
Training	\$89,680	Average number of users: 118 Average training time: 20 hours Assumed fully loaded hourly cost of an end user: \$38
Total	\$342,061	Average initial cost of deployment
<i>Average annual cost</i>		
Software maintenance	\$26,863	Average annual cost of license maintenance
Personnel	\$192,000	Average number of FTEs required to support SPSS: 2.4 Assumed fully loaded cost of a support FTE: \$80,000

Total	\$218,863	Average annual cost
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Personnel

The average number of personnel months needed to initially deploy SPSS varied broadly based on the type and scope of the project, from 1 personnel month to 45 personnel months. The average number of personnel months needed to deploy SPSS was 10 and the median was 3.

The average number of full-time equivalents devoted to supporting the SPSS solution was 2.4; the median was 1.8.

Training

On average, companies invested in 20 hours of training per user to get users up and running in using the SPSS solution; the median training time was 16 hours.

Table 2. The Median Cost of a SPSS Deployment

<i>Initial Costs</i>		
	Median	Data Components
Software	\$92,500	Median initial license price
Consulting	\$0	Median standalone consulting expenditure of customers interviewed
Hardware	\$0	Median hardware expenditure of customers interviewed
Personnel	\$20,000	Median number of personnel months needed to deploy: 3 Assumed fully loaded cost of an employee: \$80,000
Training	\$5,776	Median number of users: 9.5 Median training time: 16 hours Assumed fully loaded hourly cost of an end user: \$38
Total	\$118,276	Median initial cost of deployment
<i>Median Annual Cost</i>		
Software maintenance	\$16,188	Median annual cost of license maintenance: \$16,188
Personnel	\$144,000	Median number of FTEs required to support SPSS: 1.8 Assumed fully loaded cost of a support FTE: \$80,000
Total	\$160,188	Median annual cost

DEPLOYMENT CHALLENGES

Customers noted few deployment challenges with SPSS; in many cases, deployment began with a few seats and was expanded as knowledge and use of the solution grew. The most common challenge users faced was the demand for information and the volume of data that could be analyzed – once end users of the reporting recognized what the solution could do, they wanted more. In some cases, customers brought in SPSS programmers to help them accelerate the report building process or attended additional SPSS training to gain better insight into how to leverage more value from the solution.

The other challenge a number of users faced was in linking the reporting to business results and clearly articulating those business results to decision makers. Organizations that included business users early in the deployment process and focused on clear business goals were more successful in delivering returns from SPSS.

BEST PRACTICES WITH SPSS

Nucleus identified a number of best practices that companies followed to maximize ROI from SPSS, including a focus on quality data, evolving their solution, and keeping a focus on business results.

Clean Data

Many SPSS customers noted that the volume of data to analyze could be overwhelming – particularly if the quality of the data wasn't clear. A realistic evaluation of available data to support modeling and realistic planning for the time needed to clean and align data sets – particularly if they come from external sources – is needed to maximize ROI from SPSS.

Evolution

Although the average customer interviewed had been using SPSS for 6.8 years, many had dramatically evolved the way they used SPSS – and even the SPSS tools and solutions they used – during that time based on their business needs. Taking advantage of product flexibility and new enhancements enabled them to continue to maximize value from their SPSS investment. For example, one customer said, *"It's not static; it changes all the time. Once we were on mainframes, now all of our data is scanned by independent vendors and we download it onto the server. That may change again – the original solution is not the solution we're using today."*

Focus on Business Results

Organizations that were most successful with SPSS – whether they were health care organizations, commercial businesses, or public entities – focused on the business results they expected SPSS to

deliver and clearly articulated those results to a broader population. Helping end users of the information understand how it can help them to be more effective is key for broader support of the use of analytics to solve business problems. One customer recommended, *"Explain the results of the tool and translate into business and marketing terms, because whatever you're doing with predictive modeling, you need to translate to the business user. The project should involve business users from day one."*

CONCLUSION

SPSS's suite of analysis and statistical modeling tools enable a broad range of organizations to achieve a positive ROI by increasing productivity, reducing costs, increasing visibility into business operations, and improving customer and employee satisfaction. Delivering a payback to most customers in less than a year and being flexible and responsive has enabled SPSS not just to sell product but also to work on an ongoing basis with partners to drive additional opportunities for ROI. Companies looking for more flexibility and usability in their ability to analyze data, or those looking for a means to have better insight into specific business problems through predictive analytics, should further evaluate the ROI opportunities SPSS may offer.

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F31
Page 8