Leading Organizations Empowered by SPSS Predictive Analytics

A Compendium of SPSS Customer Success Stories
Predictive analytics software is at the cutting-edge of information technology in the business place. It is empowering organizations to generate the critical insight they demand today for a wide range of challenges they face tomorrow.

Top organizations worldwide are increasingly harnessing SPSS predictive analytics software to draw reliable conclusions about current conditions and future events by applying sophisticated analysis techniques to enterprise data. SPSS predictive analytics is helping these organizations, both commercial and non-commercial, drive their most critical operations and obtain high returns on investment (ROI). The analyst firm IDC has found that business applications involving predictive analytics software generate an average ROI of 145 percent—much higher than that for other business analytical software.*

Offering top-of-the-line products for bottom-line results, SPSS’ customer footprint is broad and deep:
- More than 95 percent of the Fortune 1000 are SPSS customers
- The top U.S. commercial banks are SPSS customers
- More than 95 percent of the Fortune 100 are SPSS customers
- All 50 U.S. state governments use analytics from SPSS
- The top Fortune 500 telecommunications companies are SPSS customers
- More than 90 percent of the top U.S. universities use SPSS
- The top 10 pharmaceutical companies in the world use SPSS analytics
- Customers in more than 100 countries use SPSS software
- More than 85 percent of the top U.S. consumer packaged goods companies use SPSS analytics

As the pages ahead will illustrate, when it comes to predictive analytics technology, SPSS is the solution-of-choice among dynamic companies and organizations across the spectrum.

Education: Achieving New Standards

More than 90 percent of the top U.S. universities use SPSS

SPSS traces its roots to academia, as the software was initially designed to help graduate students analyze public policy data. From helping Ivy League students acquire a conceptual and practical understanding of statistical methods to supporting educational assessment initiatives, SPSS maintains a strong presence at both higher education and K-12 institutions.

The main goal of education institutions is to give their students the best possible education experience. As a leading provider of predictive analytics, SPSS helps these institutions make critical institutional decisions, provide analytical instruction, and conduct research.

SPSS predictive analytics is used by leading institutions to manage student enrollment, evaluate programs and curricula, improve graduation and retention rates, develop productive alumni outreach programs, and analyze the effectiveness of Web content. Educators also turn to SPSS to help students master real-world skills in statistical analysis, data mining, and survey research.

Since the company’s origination in the social sciences, SPSS has provided the most comprehensive and widely used scientific and survey research product lines available. SPSS technology enables scientific researchers to collect and analyze critical clinical data, while SPSS survey research software helps students understand the attitudes, preferences, and behaviors of groups under study.

Primary and secondary schools are increasingly accountable to federal and state departments of education, school boards, and parents to meet stringent educational and reporting requirements. These organizations are increasingly looking to SPSS predictive analytics to help them measure progress and meet the new standards. Thousands of school districts rely on SPSS software to measure and report performance, develop effective annual tests that align with existing tests and government standards, and create strategic educational plans.

SPSS predictive analytics enable education institutions around the world to address specific issues, achieve measurable results quickly, and meet larger organizational goals.
Leading Community College Analyzes Enrollment Patterns

The mission of Cabrillo College, a two-year community college based in Aptos, California, is to aid students in their pursuit of transfer, career preparation, personal fulfillment, job advancement, and retraining goals. To improve retention, Cabrillo wanted to assess which of its 14,500 students were most likely to drop out, and then conduct proactive interventions and offer a more relevant selection of classes.

Dr. Jing Luan, Cabrillo College’s chief planning and research officer, is gaining a deep understanding of student enrollment patterns and tendencies with predictive analytics technology from SPSS. By predicting which students are less likely to return to school, the administration and faculty can directly or indirectly intervene with academic counseling, financial aid packages, and curriculum offerings. The school can also adjust its curriculum, adding programs or subtracting classes that are disadvantageous to its students’ educational plans.

With Clementine, SPSS’ data mining workbench, Dr. Luan can explore and evaluate a range of variables and predict each student’s probability of completing a class, transferring out of a class, and leaving the school altogether. “By predicting which students may need some attention or reinforcement of their education, on an individual basis we can provide them with relevant information or discuss how we can help them overcome the obstacles negating their staying,” said Dr. Luan. “We can also determine what classes should be offered at what times. For example, we found students with particular profiles were more likely to take night classes.”

In addition to enrollment management, Dr. Luan feels that SPSS technology will continue to benefit Cabrillo College in future endeavors. “Data mining has tremendous applications in higher education research, including marketing, fund raising, survival analysis, and Web site click stream analysis. Cabrillo views SPSS as a strategic partner for conducting in-depth research on our students and their enrollment patterns.”
Dutch University Improves Student Testing

The teachers at INHOLLAND, a network of universities in the Netherlands with more than 40,000 students, recognized that they needed a technology solution that could accurately grade a large number of student exams while minimizing errors, as instructors were spending too much time and effort typing and grading written exams. They also wanted to compile and analyze exam results to improve the quality and effectiveness of the tests. INHOLLAND selected software from SPSS to create, grade, process, and analyze exams.

INHOLLAND teachers use mrPaper, part of SPSS’ Dimensions market research application suite, to create a question database from which they select exam questions, eliminating the manual process of creating exams. They then use mrScan, another Dimensions offering, to grade the tests using scanning technology instead of manual data entry. According to Marc Scheunhage, ICT project manager at INHOLLAND Diemen, teachers have spent far less time grading exams and correcting errors with the support of SPSS technology.

In addition to saving time, the SPSS software enables teachers to gain important insights into the exams, including the identification of frequently missed questions and trends in student performance. Teachers then use this data to develop better exams. “With Dimensions, human error is no longer a factor. Additionally, our teachers no longer have to type the tests, which saves them a lot of work and frustration,” said Scheunhage.

“Other disciplines can also benefit from the use of Dimensions,” continued Scheunhage. “The speed and accuracy of the system, the preparation of a question database, and other advantages make it a valuable tool for any educational institution.”

By leveraging SPSS predictive analytics, INHOLLAND has significantly improved its testing system. Professors now spend less time on paperwork and more time working with students to educate and prepare them for exams, satisfying the school’s mission of ensuring that its students can develop their talents to their full potential.

“With our previous software, the answers that were not completely and clearly entered had to be corrected manually. With Dimensions, human error is no longer a factor. In addition, our teachers no longer have to type the tests, which saves them a lot of work and frustration.”

– Marc Scheunhage
ICT Project Manager
INHOLLAND
Kent State University Gains New Insights into Clinical Data

Generalized anxiety disorder (GAD) currently affects nearly five million people in the U.S. People with GAD experience debilitating pathological anxiety, which interferes with their ability to function normally. In addition to conducting clinical research on GAD, Dr. David Fresco, assistant professor of psychology at Kent State University, in Kent, Ohio, teaches clinical research methods and cognitive behavior therapy.

To better and more quickly identify meaningful relationships in his clinical data, Dr. Fresco required technology that could be used to conduct statistical interpretation and data analysis. As an avid Macintosh® user, he needed software that was also Windows®-compatible, enabling easy collaboration with colleagues. Dr. Fresco selected SPSS predictive analytics for both of his major areas of study: the study of causes and treatment of GAD; and the identification, distillation, and dissemination of factors associated with human resilience and excellence.

By using SPSS for Mac OS X, the Macintosh-based version of SPSS’ data management and statistical software, Dr. Fresco can now rapidly analyze clinical population data and determine which characteristics correlate. According to Dr. Fresco, “The flexibility of SPSS in handling multiple data formats, regardless of whether they’re text, Excel™, Access®, etc., is extremely beneficial. Since the datasets are so compact, I can share results with colleagues via the Internet and collaborate in real-time.”

By identifying patterns and relationships in data, Dr. Fresco can rephrase his questions or adjust his analysis to help identify the cause of the disorder and develop treatments. “The inherent ease of use of SPSS for Mac OS X has allowed me to focus less on crunching the data and devote more time to posing harder questions.” With SPSS predictive analytics playing an integral role in his analysis, Dr. Fresco will continue to develop and refine treatments in an effort to ensure the highest rate of improvement and foster people’s ability to overcome adversity.
Michigan School District Enhances Analysis of Student Data

Managing an educational system of 40 schools with more than 17,500 students from K-12, Michigan’s Lansing School District recognizes the importance of educational data analysis in helping to improve its students’ likelihood for success. As the research and evaluation assistant for the district’s Department of Evaluation and Pupil Accounting, Bethany Deschaine is responsible for analyzing and reporting students’ progress based on information stored in multiple databases. Since the district required a technology solution that could thoroughly analyze school district data, Deschaine encouraged Lansing to standardize on SPSS predictive analytics.

Using SPSS for Windows statistical and data management software, Deschaine is now able to collect data from all district sources and conveniently compile it into a single file. Additionally, with SPSS Text Analysis for Surveys, she is able to incorporate open-ended survey data into her research. Deschaine found that better data provides teachers with more insight into a child’s strengths and weaknesses.

Teachers evaluate a student’s progress based on information generated from academic markers such as GPA, Iowa, and MEAP test results, and attendance, as well as traditionally overlooked factors such as how often a child transfers schools. Once Deschaine provides teachers with individual student results, the teachers then communicate their conclusions and recommendations to parents. “They can sit down with them at conference time and discuss where the students are strong and where they are weaker. So it’s not just providing administrators with numbers, it enables the teacher to provide the parents with some concrete guidance.”

“Based on our experience with SPSS, I don’t understand why some districts don’t want to find a product that makes their life easier and gives them the most accurate information they can get,” continued Deschaine. By reducing the time it takes to navigate through the web of information contained in the Lansing School District’s databases, SPSS predictive analytics enable Deschaine to meet the requests of teachers and administrators promptly.

“It’s vital that I give teachers information in time for them to help their students. To really analyze data, to get as deep as you need to get, and to get the insights to the right people as fast as possible, I would go with SPSS.”

— Bethany Deschaine
Evaluation Assistant
Research, Evaluation, and Pupil Accounting
Lansing School District
For more than 30 years, Dr. Sharon Weinberg, professor of Quantitative Methods and Psychology, has taught statistics at New York University. Professor Weinberg was concerned that the time-consuming process of number crunching unnecessarily distracted her students from the intellectual exercise of acquiring a conceptual understanding of statistical methods. With the goal of focusing students’ attention on learning concepts rather than on formula manipulation, Professor Weinberg introduced predictive analytics software from SPSS into her curriculum.

From the beginning, Professor Weinberg was impressed by how well students adapted to SPSS’ data management and statistical software, SPSS for Windows. She discovered that SPSS is a “wonderful platform” for students to learn what it means to be a data analyst. Not only is it easy to master, but its capabilities allow Professor Weinberg to approach statistics from a different perspective.

“With SPSS, students can tackle important real-life problems, applying a range of analyses to achieve a solution in a short period of time,” said Professor Weinberg. The software’s ability to handle large datasets offers her a teaching tool that can replicate the complexities of real-life problems. Additionally, the software’s graphing capabilities provide students with the ability to examine data quickly and effortlessly.

Overall, the use of SPSS predictive analytics to perform computations on real data and create graphical summaries not only enables a greater emphasis on conceptual understanding and interpretation, but also allows students to study statistics in a way that reflects actual statistical practice. By combining over three decades worth of teaching experience with advanced statistical software, Professor Weinberg teaches a course in which she and her students have become vested partners in learning—the true aim of higher education.
Finance: Gaining Key Customer Insight

Market forces such as mergers, globalization, intensifying competition, and new regulatory requirements are radically altering the financial services landscape. Leading financial services firms are prospering during this turbulent time by applying SPSS predictive analytics to their most valuable asset—customers.

Predictive analytics makes it possible to leverage the distinct multi-channel nature of the financial services business—both the wealth of data available and the numerous points of interaction—to gain new insights into customer behavior and preferences. With SPSS predictive analytics, financial organizations are acquiring the right customers cost-effectively, growing these relationships through real-time interactions, and detecting and preventing fraudulent activity.

Success in customer acquisition depends on precise, timely targeting that delivers compelling offers to prospects and keeps costs low. Financial services organizations are building predictive analytics into their acquisition processes, enabling them to minimize acquisition costs by predicting which marketing programs will generate the highest responses—before investing limited marketing budgets in the wrong campaigns or inaccurate targets.

SPSS predictive analytics enables financial services organizations to pursue aggressive customer growth strategies through cross-selling and up-selling. By capitalizing on all customer touch points—such as branch offices, contact centers, and Web sites—these companies leverage real-time analysis to increase the value of customer interactions by determining which offers provide the highest mutual value, and then applying that insight on demand.

Additionally, both undetected fraudulent activity and unnecessary credit exposure put financial services companies at great financial and legal risk. Predictive analytics helps these organizations increase capital efficiency and compliance by continually minimizing fraud, credit, and money laundering risk. By offering a more open, adaptive system, SPSS enables financial services firms to detect and prevent fraudulent activity, prevent money laundering by detecting suspicious patterns, and determine good and bad credit risks.

SPSS helps financial services institutions maximize customer value and minimize risk through the effective application of predictive analytics, transforming data from every channel into important customer insight.
Leading Bank Cuts Costs While Improving Information Flow

ABN AMRO improves internal information flow and facilitates global employee communications through a business-to-business employee portal. The portal provides the company with a communications infrastructure that not only saves money through self-service initiatives, but also benefits employees through greater access to information and services based on preferences.

ABN AMRO uses SPSS predictive analytics software to provide valuable insight into how employees use the portal. By using SPSS’ NetGenesis to determine the applications used and the content viewed, ABN AMRO is able to see trends and issues that drive staff development. ABN AMRO also leverages this information when negotiating more favorable licenses with its software application vendors, representing further savings.

Utilizing the portal, ABN AMRO is able to encourage employees to carry out a range of self-service related tasks, such as requesting leave approvals, making travel bookings, finding out about the company pension plan, and even participating in online training. This insight has made ABN AMRO aware of the ever-increasing demands on its employees’ time and so it has designed the portal accordingly, with tools intended to make their lives easier by introducing new services, including Internet banking.

“Having a system in place to provide reporting on portal usage is vital to understanding if employees are finding it useful,” said Jeannine Lehman, senior vice president, wholesale clients e-commerce, ABN AMRO. “With leading predictive analytics software from SPSS, we can monitor employee satisfaction and increase the utility of the solution, which is the key to the portal’s success.”
Credit Suisse’s Marketing Campaigns Increase Profitability and Customer Loyalty

Competition in the financial services industry is intense, and obtaining new customers is an expensive proposition. To maximize profitability, generate targeted customer leads, and tailor marketing programs to segmented customers, Credit Suisse created a “Loyalty Based Management” program. The program relies on SPSS predictive analytics software to increase the efficiency of its direct marketing campaigns.

The organization uses SPSS’ Clementine to analyze a robust data warehouse of its 2.5 million customers. The analysis is used to identify potential leads among Credit Suisse’s customers so that it can intelligently market to them based on their individual preferences and histories. In addition, detailed segmentation of its vast customer base allows Credit Suisse to target its customers with customized solutions.

Credit Suisse understands that it is not enough to know whether customers are interested in a product. It needs to know if they will actually follow through and make a purchase. SPSS’ Clementine allows Credit Suisse to analyze situations where customer interest in a service did not correlate with a purchase.

Many times, customers did not have good enough credit and were subsequently refused service. Refinement of the models factored in credit. As a result, the percentage of customers interested in purchasing a service, but who were refused due to bad credit, was reduced by almost half, allowing for substantial cost savings and enabling Credit Suisse to recoup the total costs of the project within two years.

“With the help of SPSS predictive analytics software, Credit Suisse’s data mining activities—analysis and modeling—have been fully integrated into our business process and have proven their value in many different applications,” said Dr. Alex Nippe, head of data analysis/data mining, Credit Suisse. “The demand for data mining within the bank is rising all the time, and the strategic component is becoming increasingly important.”
Bank Increases Lead Generation Effectiveness

A key element of Fortis Bank’s customer contact strategy is increasing the effectiveness of every branch office client interaction. Fortis Bank uses SPSS predictive analytics software as the foundation of its lead generation and database-marketing environment.

With SPSS’ PredictiveMarketing, Fortis Bank is able to analyze its marketing database, automatically predict cross-sell opportunities and attrition risks, and provide targeted sales leads for more than 700 of its account managers across the bank’s nationwide branch network. By recommending the best action to take for each individual customer, Fortis Bank significantly increases conversion rates and generates additional revenue. In addition, the financial institution can generate highly qualified leads that enhance its direct marketing and branch network revenue-generation capabilities.

“SPSS’ PredictiveMarketing clearly stands out from the competition and has impressed us with its ability to generate results in a very short time frame,” commented Peter Heijt, manager of database marketing from Fortis Bank.

“Its effectiveness in identifying and generating qualified leads will put our marketing department in the driver’s seat and save our branch-based account managers considerable time and effort. This will enable our account managers to spend more time serving and advising our customers—a key part of local retail banking. We’ve already begun to experience the benefits of PredictiveMarketing through increased conversion rates.”

“Financial institutions like Fortis Bank can generate tremendous additional value from interactions with their customers by better understanding individual customer needs,” said Colin Shearer, vice president, customer analytics at SPSS.

“Rather than matching groups of customers to particular products or offers, we provide personalized offers to individual customers for the bank’s financial advisors. This stops inappropriate campaigns from bombarding their best clients, an approach which enables Fortis Bank to build even closer customer relationships via its branches, and unlock potential new sources of revenue.”
Within the two-week pilot period, we had built 24 fully working predictive models with an estimated annual savings of approximately £3.5 million.”

– David Cooper
Head of Fraud Strategy
Lloyds TSB

Lloyds Saves Millions of Pounds with Fraud Detection Application

Lloyds TSB is a part of the Lloyds TSB Group, a leading U.K.-based financial services group, whose businesses provide a comprehensive range of banking and financial services in the U.K. and overseas. Due to the industry-wide increase in credit card fraud, Lloyds TSB recognized the need for improved fraud detection. The bank established a dedicated section within its main fraud department with the sole purpose of using data analysis to reduce card fraud at every potential stage.

Data analysis using SPSS predictive analytics software has enabled Lloyds TSB to improve the fraud detection process and save millions of pounds. While fraud affects only a small percentage of Lloyds TSB’s total business, it is costly to the bank, as well as inconvenient to customers whose confidence in the payment process is paramount.

Using AnswerTree, part of SPSS’ data mining family, Lloyds TSB is able to analyze different types of fraud, such as card or identity theft, and build profiles of tactics adopted by fraudsters. The SPSS solution offers unrivaled analytical power and scalability, as well as visualization features created to give organizations smarter, more productive ways to discover significant groups and create profiles.

In addition to providing significant financial benefits to Lloyds, the SPSS application has reduced the time analysts need to develop a complex business rule from a few days to a few hours. Furthermore, the software enables analysts to simulate models prior to implementation and, therefore, quantify the affected data in advance.

Differentiating between genuine and fraudulent purchases is an ongoing issue facing the financial services industry. While Lloyds TSB could potentially stop nearly all card fraud by speaking directly to cardholders every time a transaction is made, with several million credit cards in circulation, this is simply not possible. Instead, it deploys SPSS predictive analytics to improve both its fraud detection and prevention capabilities, limiting the negative impact on customers and shareholders.
Top Dutch Financial Firm Transforms In-bound Service Calls into $30 Million in Revenue

The growth strategy of Spaarbeleg, one of Holland’s larger financial services institutions, is based on expanding sales to its existing customer base. Aware of the dangers associated with over-saturating its customers with unsolicited messages, Spaarbeleg takes an innovative approach by converting inbound calls into its service call center into new sales opportunities. Spaarbeleg achieves this using SPSS predictive analytics software, which has been integrated with an existing home-grown call center environment.

PredictiveCallCenter provides Spaarbeleg’s call center agents with highly accurate, personalized product offering recommendations during service calls. Using business logic, the application generates real-time predictions regarding each individual customer’s needs, recommending the product most likely to be of interest. Additionally, Spaarbeleg uses PredictiveMarketing to increase the response rates of its conventional direct marketing campaigns.

During the first year of implementation alone, SPSS predictive analytics software detected a potential cross-selling opportunity for 18 percent of Spaarbeleg’s one million inbound calls. Offer recommendations were communicated through a pop-up window on the agent’s desktop. In those cases in which an offer was made, 50 percent of the customers responded positively and were sent additional information. Of this group of customers, 75 percent converted, resulting in the sale of 22,000 products.

The bottom-line impact for Spaarbeleg is that $30 million in additional sales was generated in one year using PredictiveCallCenter.
Government: Better Serving the Public Good

All 50 U.S. state governments use analytics from SPSS

Governmental agencies at all levels are experiencing budget reductions while being asked to do more with existing resources. From fraud detection to homeland security to more efficient deployment of law enforcement officers, SPSS predictive analytics enables a wide array of government agencies to better serve the public good.

Fraud, waste, and abuse cost government agencies and programs billions of dollars every year. By creating models of different types of fraud, waste, and abuse, SPSS software monitors current activity and sends an alert when a case matches a model of one of these activities. In addition to uncovering existing instances of such activity, predictive analytics is also used to prevent future occurrences.

Threats to homeland security are real, but the patterns that suggest real threats are often hidden in massive amounts of data. Through a combination of measurement, prediction, and real-time deployment of findings, SPSS predictive analytics is being used in a number of critical homeland security efforts, including interpretation of intelligence data, insider threat detection, network intrusion detection, border protection, and syndrome surveillance and public health.

Additionally, predictive analytics plays a key role in helping law enforcement agencies utilize their resources most effectively to successfully combat crime and protect public safety. Implemented by hundreds of law enforcement agencies, court systems, correctional institutions, and parole boards, SPSS technology enables these organizations to base decisions on data-driven models that accurately depict both current and developing conditions. These agencies are now able to deploy personnel more effectively, predict which events are most likely to escalate into serious or violent crimes, solve criminal cases more efficiently, and deliver critical real-time information to the field.

By identifying patterns in massive amounts of data, analyzing multiple data sources, presenting information graphically, and sharing information across geographic and jurisdictional boundaries, SPSS predictive analytics helps government agencies anticipate behavior and events, and maximize their limited resources.
Atlanta Police Department Reduces Crime and Increases Officer Safety

As part of the federal Project Safe Neighborhoods initiative, the Atlanta Police Department (APD) focuses on the city’s firearm crime hot spots. The APD turned to Applied Research Services, a public policy research firm, to analyze their criminal history records. Using SPSS predictive analytics, Applied Research Services analyzed the massive amounts of data contained in the Georgia State Criminal History Records Repository. Now, police and patrol officers in the field can be strategically assigned to areas frequented by Atlanta’s most dangerous offenders, allowing the APD to maximize its patrolling capabilities and increase efficiencies during a time when it does not have the budget to hire additional officers.

“By focusing our efforts on those individuals who are the most criminally active and have a violent history, the Atlanta Police Department will have a longer-lasting impact on reducing crime in the city,” said Major Jim Sellers of the APD.

The data provided by Applied Research Services has also improved the safety of patrol officers, according to Sellers. By using map information in conjunction with SPSS statistical and data management software, SPSS for Windows, officers are notified where high-risk offenders living on their beat are located. This information has allowed officers to better prepare themselves for criminal encounters and has decreased the element of surprise from their daily routine.

“At first glance, people would rather have more police feet on the street than research or technology,” said John Speir, co-owner of Applied Research Services. “But we’re working hard to show everyone that research can help officers to do their jobs better and more efficiently. . . . We’re truly grateful that we have an amazing product like SPSS for Windows to crunch, sort, and organize this type of information.”

Thanks to SPSS technology and the expertise of Applied Research Services, the Atlanta Police Department can now optimize its deployment of over 1,700 sworn officers while also increasing their safety, helping them to fulfill its mission, “To reduce crime and promote the quality of life, in partnership with our community.”
Community Housing Organization Improves Residents’ Quality of Life

First Community Housing (FCH) is a not-for-profit organization dedicated to providing affordable housing and services to lower-income individuals in the San Jose, California, area. Based on information revealed by SPSS predictive analytics, First Community Housing was able to improve the quality of life in its developments by increasing resident employment in high-demand industries and increasing social interaction between residents.

FCH’s first step in making improvements was to better understand the needs of its residents. Through the use of SPSS statistical analysis software, the non-profit organization learned that residents were interested in additional information about, and training for, technical jobs. In response, FCH created a computer-training program for its residents. According to FCH resident services coordinator Vincente Rivero, the number of residents employed in the computer industry increased 24 percent, and use of FCH’s existing computer lab increased 42 percent.

The results from the SPSS analysis enabled FCH to identify no- or low-participation programs, freeing up funds that were then redirected to more popular programs. For instance, SPSS analysis revealed that residents did not use FCH’s software purchase program. FCH cancelled the program and used the funds to expand its financial counseling services and increase the number of recreational programs for children—programs that now boast user rates of more than 70 percent.

With the help of SPSS, FCH also discovered that a majority of residents wanted more social programs. Yet only 10 percent of residents used existing social resources—such as the clubhouse—and usage had declined steadily. FCH began to publicize clubhouse events and added new features. Clubhouse use more than doubled, and in an informal survey conducted after the changes were implemented, 63 percent of residents indicated that they socialized more. “These changes have improved community life at FCH,” says Rivero. “Residents demonstrate improved morale in their increased willingness to volunteer for tasks such as computer lab upkeep—and by spending less time gossiping about crime in the complex.”
The Louisiana Commission on Law Enforcement serves the governor and legislature, and responds to requests for information from citizens, the media, and government agencies. SPSS predictive analytics enables the Louisiana Commission on Law Enforcement to analyze an average of 13 million criminal records each month in order to determine the impact of policy changes on the 275,000 crimes committed each year.

The Louisiana Commission on Law Enforcement is responsible for collecting data on crimes and arrests from 374 law enforcement agencies around the state, and then including those figures in its Uniform Crime Report for the Federal Bureau of Investigation. To get the most out of the data, the Commission uses SPSS for Windows for data analysis, graphing, and reporting.

“We use SPSS for Windows to perform actuarial analysis and statistical studies, and to help forecast crime rates and prison capacity,” said Carle L. Jackson, state policy advisor for criminal justice at the Commission. “This helps us determine the number of jail cells for the future. We also use it to analyze the success of Commission on Law Enforcement programs and to ensure that statistical data about each crime are collected. We need the flexibility in report-generating capabilities because the data are utilized by many people for many reasons.”

The Department of Corrections (DOC), based in Baton Rouge, was asked to compile a report on the average sentence length for all offenses committed in the state in the past year. The DOC estimated it would need 48 hours of mainframe programming time to retrieve the proper statistics from its relational database management system. Running the same analysis on SPSS for Windows, the Commission on Law Enforcement was able to reduce that time to 30 minutes.

Through the continued use of SPSS predictive analytics and an emphasis on quality data collection and reporting, the Commission hopes to translate improvements in information technology to crime prevention programs that keep the streets safe in communities throughout the state.
Queensland Fire and Rescue Authority Saves Time, Money, and Lives

The Queensland Fire and Rescue Authority in Australia oversees the fire and safety practices that cover the state’s 3.5 million people. The Authority tracks details such as the time, date, and address of fires; the amount of property lost; the cause and cost of the fire; and the number of casualties—all with the goal of improving the firefighting and emergency services provided to the public. To simplify and expedite the analysis of the data it collects, the Authority uses SPSS predictive analytics.

The Authority's statistician turned to SPSS statistical analysis software to consolidate the data files, increase the usability of the system, and reduce the time needed to complete data analyses.

“We now have people walk in and say, ‘I need an analysis of how many fires there were in a certain region in a certain time period,’ and it takes longer to print the analysis than it does to run it,” said Brian Maclachlan, principal adviser for statistical research and analysis. “Prior to implementing SPSS, I would have said, ‘Come back in a few months and we'll have it for you.’”

In addition, SPSS enables the Authority to measure success and place resources where they're needed. For example, the Authority is using the data it collects to determine whether fire stations are operating in the right locations. “With SPSS, I can focus on areas of analysis that have been ignored in the past,” said Maclachlan. “We're now actually using the data we're collecting.”
At the Richmond (Virginia) Police Department, no analyst or team of analysts could manually analyze all of the data available in a timely manner. Within this deluge of data, however, lies the key to increasing the safety of the public in order to uncover crime patterns and determine how to best deploy police officers. To swiftly and accurately sift through all the data, the Richmond Police Department turned to SPSS predictive analytics.

Critical to crime fighting is the recognition of patterns, based on the intelligent and timely analysis of the thousands of incident reports, crime tips, calls for service, and other pieces of data that police departments receive every day. The Richmond Police Department turned to Clementine, SPSS’ data mining workbench, to help analysts identify actionable patterns in these huge datasets and make effective decisions.

To enable multiple users within the department to access Clementine models and score data on an ad hoc basis, the Richmond Police Department also uses SPSS’ Cleo, a Web-based data mining deployment tool. The police department’s analysts deploy the predictive models they develop with Clementine, and deploy them through Cleo over the department’s intranet to operational personnel, such as police detectives. The detectives are then able to enter information through a Web interface, which includes simple prompts and pull-down menus, and receive immediate output, regardless of whether crime analysts are on duty.

“Criminal actions follow the same predictable patterns of most human behavior,” said Colleen McCue, program manager of the department’s crime analysis unit. “Some criminals have geographic comfort zones or may commit crimes only at certain times of the day. These tendencies can be easily uncovered using SPSS predictive analytics, which enables law enforcement agencies to analyze their raw data in order to predict, prevent, and solve crime, and keep their communities safer. It’s as close to a crystal ball as we are ever going to get.”
Insurance: Maximizing Customer Relationships

The world’s third largest life insurance organization uses predictive analytics from SPSS

In today’s volatile market, insurance claim losses and unprofitable customer relationships can quickly overwhelm an insurance provider. To transform these potentially costly challenges into opportunities, many insurance companies are harnessing predictive analytics from SPSS to improve their daily operations. SPSS helps insurance companies maximize customer value and minimize claims risk by integrating real-time analysis into existing systems and processes.

Understanding customer value segments is the first step in any strategy for winning profitable customers, growing those relationships, and maintaining them longer. SPSS enables insurance companies to leverage their organizational understanding of customer value segments, using all relevant information—including claim, behavioral, demographic, text, Web, and attitudinal data.

SPSS predictive analytics also enables insurance firms to target outbound and inbound marketing programs to the prospects most likely to respond and become profitable customers. As the insurance business experiences what are perhaps the highest customer acquisition costs of any industry, the ability to minimize those costs by predicting which marketing programs will generate the highest response provides a strong competitive advantage.

Additionally, opportunities exist for cost-effectively growing customer relationships through optimized cross-selling and up-selling. By using predictive models to uncover complex purchasing behavior and identify events that reveal new policyholder needs, SPSS enables insurance companies to act on the best sales opportunities as they occur.

With SPSS predictive analytics, insurance companies reduce claim handling costs and keep customers satisfied by using real-time risk assessment to process legitimate claims quickly. Highly accurate predictive models catch a greater percentage of fraudulent claims early in the handling cycle, enabling investigators to take action quickly and reduce fraud costs.

By providing real-time analysis for maximizing customer relationships and minimizing claim risk, SPSS is improving the operations of leading organizations in the insurance industry.

www.spss.com
Health Insurance Carrier Increases Cross-Sell Conversion Rates by Over 50 Percent

Amicon, a major health insurance provider in the Netherlands, sought to increase the conversion rates on its health insurance products by providing more customized product offers to customers based on a thorough understanding of individual behavior and needs. Using SPSS predictive analytics software, Amicon is able to increase both the response and conversion rates of marketing campaigns. This has allowed the company to better retain existing customers, increase cross-selling of products, and engender higher customer satisfaction and profitability.

SPSS’ PredictiveMarketing has strengthened Amicon’s marketing department by adding action-driven predictive analytics—resulting in highly targeted and more frequent marketing campaigns. Amicon has increased sales conversion rates and vastly improved customer service by tailoring product offers to particular customer needs. The company is also able to calculate the profitability of marketing campaigns in advance, enabling it to plan marketing activities and budgets strategically.

PredictiveMarketing will allow Amicon to easily extend future use of analytics to all customer interaction points, such as the call center, enabling the organization to provide its representatives with real-time recommendations during customer contact. In addition, Amicon can build customer behavior models in just two hours instead of two weeks.

“To enhance customer retention and profitability, we were searching for an advanced analytical solution that would be fully functional within a few months to enable action-driven marketing. PredictiveMarketing was put to immediate use and quickly demonstrated significant results: an increase of over 50 percent on the cross-sell conversion rate of our campaigns,” says Henk Ramautar, commercial director of Amicon. “The software also fit well into our existing database marketing processes and architecture. In short, SPSS software allows us to increase profitability fast and to better serve our customers.”
Belgium’s Second-Largest Insurance Company Optimizes Marketing

Founded in 1931, Corona Direct is Belgium’s second-largest direct insurance company, employing 150 people and generating revenues of $25.8 million in 2002. A subsidiary of the Belgian-French banking and insurance company DEXIA, Corona Direct provides customers with products such as car, fire, and property insurance.

Corona Direct has been growing rapidly. Direct marketing campaigns play a key role in this growth, enabling Corona Direct to acquire new customers by offering attractively priced insurance products. To sustain its current level of growth, Corona Direct’s customer acquisition campaigns need to be profitable—that is, first-year revenues generated from new insurance policies should pay for the cost of the acquisition campaign.

However, in the past, the cost of securing new customers exceeded first-year revenues by almost 50 percent, putting Corona Direct’s growth strategy at risk.

To turn its unprofitable acquisition strategy into a profitable one, Corona Direct implemented SPSS’ PredictiveMarketing predictive analytics solution. This application enables Corona Direct’s marketers to efficiently create, optimize, and execute their outbound marketing campaigns. PredictiveMarketing automatically identifies groups for Corona Direct that are likely to respond to a campaign, and then performs a sophisticated cost-profit analysis, balancing growth targets against profit margins. With this dual focus on likelihood of response and expected profitability, Corona Direct is able to optimize its potential for growth.

“We use SPSS' software to gain a better understanding of our customers and market opportunities has enabled us to outperform the competition in both growth and profitability,” explained Philippe Neyt, commercial director, Corona Direct. “Predicting the needs and profitability of individual customers and prospects is key to this growth. However, creating a profitable acquisition strategy is only the first step. We expect PredictiveMarketing to increase our success rate by 50 percent or more for targeted cross-selling and retention strategies.”
Dutch Insurance Company FBTO Reduces Direct Mailing Costs

FBTO Verzekeringen is a Dutch insurance company and part of Benelux Achmea Holding, a subsidiary of the European insurance and financial services group Eureko. FBTO has approximately 500,000 customers and underwrites more than one million car, health, home, and life insurance policies. To reduce direct mail costs, FBTO wanted a solution that would allow it to model customer behavior, predict customer needs, anticipate customer reactions to special offers, and then use these insights to make its marketing campaigns more effective.

Because FBTO planned to transition from a small number of large bulk mailings to many smaller, more highly targeted campaigns, it was also important that the chosen solution allow its marketers to efficiently create, optimize, and execute these campaigns, without having to rely on statisticians.

To meet these requirements, the company chose SPSS’ PredictiveMarketing predictive analytics solution. This application uses predictive analytics to identify those FBTO customers or prospects with a better-than-average propensity to purchase a financial product. FBTO monitored the effectiveness of PredictiveMarketing by rolling out marketing campaigns in an experimental fashion using a control group. Comparing its previous approach of mass mailings to its new, more targeted approach, FBTO found that its conversion rate increased by more than 40 percent and its direct mailing costs decreased by 35 percent.

Now, FBTO’s marketing team can simulate different scenarios and calculate conversion rates and mailing costs in advance. Based on this information, outbound channel and target groups are selected for each marketing campaign, increasing their effectiveness.

FBTO has recently implemented other SPSS applications. It is using PredictiveCallCenter for real-time cross-selling and retention efforts in its service call center, as well as PredictiveWebSite to generate highly targeted banner ads and other content on its MyFBTO Web site. Through SPSS predictive analytic applications, FBTO has found a more effective way to hit its marketing targets.
Insurance Firm Increases Revenues Through Targeted Campaigns

Natexis Assurances, the insurance division of French bank Groupe Banque Populaire, had been spending significant funds on direct mail campaigns. The central marketing department defined the campaigns, contacted the individual local branches to determine if they were participating, and then executed the campaigns. Since branch participation was discretionary, it was crucial for the marketing department to demonstrate that its campaigns were generating high-quality responses to justify and reinforce the local branches’ investments.

To further increase the quality of its direct marketing campaigns, Natexis Assurances selected SPSS predictive analytics software to easily create, optimize, and then execute targeted marketing campaigns. The focus has been on securing high-quality leads for the branches and, ultimately, generating substantially more revenue per campaign.

PredictiveMarketing enables Natexis Assurances’ marketers to efficiently create and execute their outbound marketing campaigns. Using this application, they can better understand customer needs and optimize campaign response rates by selecting those customers that will generate the highest value for the company. As a result, direct mail volume has been reduced by 50 percent while revenue has doubled.

SPSS predictive analytics software gives Natexis Assurances control of the marketing approach for each client and, at the same time, optimizes the cost and return of each campaign on behalf of their branch offices—a positive outcome for each group and for the company overall.

“We are very satisfied using PredictiveMarketing, as it has proven to generate tangible business benefits very quickly,” comments Arthur Seck, strategic marketing manager of Natexis Assurances. “The software enables us to execute much more effective marketing campaigns, reduce our sales and marketing costs, and significantly increase the conversion rates we normally achieve. Implementing SPSS’ PredictiveMarketing has already delivered substantial additional revenue, and we expect to gain much more in the near future.”
Leading Insurance Provider Improves Productivity

Mutual insurer Shenandoah Life Insurance Company provides a variety of insurance and financial products, including life, dental, disability, and annuities. As part of its continuous self-assessment process, the Roanoke, Virginia-based company identified bottlenecks associated with its paper-based underwriting function as an area for potential improvement. To maximize the effectiveness of a newly implemented imaging/workflow system, Shenandoah Life turned to predictive analytics from SPSS for executive reporting and process improvement.

The new imaging/workflow system enables employees to scan each application, making this information available company-wide. As insurance documents move through the workflow queue, files are created to capture the timing of each step in the process. Reporting analyst Kaffa Shank uses the ShowCase Suite from SPSS, a business intelligence solution, to examine these files and produce “time service” reports that reveal how long a policy takes to move through the system.

“With the file that is created from the workflow system, we can use ShowCase to monitor specific tasks and determine if those tasks are being performed in a timely manner. By tweaking these tasks, we can reduce the cost and time it takes to approve a policy, thereby improving the overall customer experience.”

Kaffa Shank
Reporting Analyst
Shenandoah Life Insurance Company

Shank’s time service reports provide Shenandoah Life’s management the ability to monitor policies, locate bottlenecks, and devote additional resources to improve productivity. As a result, the company was able to reduce approval times for policies with a value of less than $100,000 by 20 percent—moving the process from seven business days to less than six.

Shenandoah Life’s investment in SPSS predictive analytics demonstrates the premium the company places on improving customer service and retaining competitive advantage through technological commitment.
Manufacturing: Ensuring Quality and Competitiveness

More than 85 percent of the top U.S. consumer packaged good companies use SPSS analytics.

To remain profitable today, manufacturing companies have to track and move extensive inventories; generate a greater number of products; maintain quality standards; negotiate with numerous suppliers; and acquire, satisfy, and retain valuable customers. As manufacturers deal with a complex array of daily issues, they apply SPSS predictive analytics to enhance reporting capabilities, manage inventory, and improve the quality of goods.

Through both industry consolidation and extended reliance on legacy applications, manufacturers require complex reporting capabilities that older systems cannot satisfy. They are addressing these reporting deficiencies with SPSS predictive analytics. SPSS provides ad hoc reporting and analysis capabilities, reduces the time required to produce management reports, and enables organizations to develop preformatted reports on a daily, weekly, and monthly basis.

By evaluating a combination of ordering patterns, inventory levels, and replacement parts pricing, SPSS helps organizations improve margins while maintaining a high level of customer satisfaction. Predictive analytics enables fast, optimal calculation and evaluation of inventory replenishment policies that determine when certain items should be reordered and in what quantity. These policies help manufacturers achieve targeted customer service levels while minimizing ordering costs and inventory holding costs.

Manufacturers also use SPSS to monitor the quality of goods produced. With multidimensional analysis, manufacturing executives can drill down and quickly determine the causes of quality issues, enabling them to correct problems before products are shipped to customers. By visually analyzing supply-chain issues and performance levels, management reduces total expenditures and supplier risk, and ensures the on-time delivery of quality products.

Manufacturers face globalization, increasing competition, and highly demanding customers. Armed with SPSS predictive analytics, they are better equipped to address both internal issues and external factors affecting their business.
Canon is a world leader in imaging products and solutions for digital home and office environments, including digital imaging devices, digital and analog copiers, image filing systems, printers, fax machines, bubble jet printers, scanners, cameras, video cameras, binoculars, and calculators.

Canon wanted to drastically reduce the time required to produce management reports, and to provide ad hoc reporting and analysis capabilities for a range of business applications.

The solution was an SPSS data warehouse, which Canon used to improve several key elements of its business operations.

Being more than satisfied with the reliability and performance of the IBM® eServer iSeries™ (AS/400®) platform, it was important to Canon that the solution could run on the same platform, to minimize any problems feeding data from its Intentia® Movex® ERP system. In addition, Canon wanted to take advantage of its in-house iSeries skills.

SPSS seemed the natural choice because of its specialization in the iSeries platform, and its ability to easily extract data from Movex. Canon was also impressed with the entire predictive analytics toolset that could be provided by SPSS—the relational data warehouse, the world-class ShowCase Essbase® OLAP product, the ETL tools, and the ShowCase Query™ and Report Writer™ facility, as well as the ability to deploy over the Web. Another huge appeal was that once the initial investment was made with SPSS, there was no restriction on the number or nature of applications that could be created using the technology.

Canon’s business and financial analysts use SPSS’ ShowCase Suite on a daily basis, creating ad hoc reports that provide details of products sold across the various regions. For instance, the Average Selling Price report shows which products have been the most heavily discounted and in which geographic regions. Prior to the ShowCase Suite application, this report simply could not be produced. Now, the very latest product discount information can be produced by clicking on one button, at any point in the month.
GE Aircraft Engines Gets Training on SPSS-Enabled Web Monitoring

GE Aircraft Engines is the world’s leading manufacturer of jet engines for military and civil aircraft. With annual revenues of $11.4 billion, GE Aircraft Engines is one of GE’s largest businesses, employing 26,000 people in 40 locations worldwide.

GE Aircraft Engines uses NetGenesis from SPSS to monitor activity on its Web site, www.geae.com, and on company intranets.

The company recently required staff training for NetGenesis, a requirement that was challenging to meet because the individuals to be trained were literally on opposite sides of the world. But SPSS Training Services easily rose to the challenge.

Reports generated by NetGenesis are used by analysts and managers at GE Aircraft Engines’ headquarters in Cincinnati, Ohio. But the administration of the Web site server—and of the NetGenesis solution—is carried out at GE Aircraft Engines’ facility in Bangalore, India. The time difference between these locations is almost 11 hours, so that early morning in one location is early evening in the other. Another complicating factor was that India has strict rules about the number of hours employees may work per day, and about starting and stopping times.

To cost-effectively train team members in both locations, SPSS Training Services offered a Web-based training solution. Although SPSS Training Services had previously offered Web-based training for clients located in diverse geographic locations, this was the first time that a class involved locations so far apart.

Scheduling each class to start in what was the early morning for SPSS trainers and GE Aircraft Engines’ U.S.-based employees enabled employees based in India to attend without violating any work rules.

“The online class accommodated our international team members that otherwise would not have been able to receive training,” said Matt Hoying, application architect, GE Aircraft Engines eBusiness & Technology Solutions Group. “I would definitely recommend such online training courses for other GE businesses.”
Better Products at Lower Costs for National Textiles

National Textiles provides yarn, fabric, and “cut parts”—fabric cut into pieces for sewing into garments. Its largest customers are the apparel divisions of Sara Lee Corp. that make familiar Sara Lee brands such as Champion®, Hanes™, Hanes Beefy-T®, Hanes Her Way®, and Just My Size®. National Textiles is the third-largest consumer of cotton in North America, operating nine manufacturing facilities and a cotton distribution center, all located in the southeast. The company is on the “Forbes 500” list of the largest privately held U.S. companies.

For two years after National Textiles’ creation, the IT department evaluated and consolidated existing business software applications.

Beginning in 1998, National Textiles initiated a series of projects resulting in a custom-developed quality monitoring, analysis, and reporting framework that delivers impressive business results. SPSS predictive analytics solutions were integral to this effort from the beginning. Using SPSS’ ShowCase Warehouse Builder™, National Textiles first created a data warehouse containing detailed information about product performance, such as weight, shrinkage, and flammability. Reports developed using ShowCase Query and Report Writer provided basic information on quality to company management.

National Textiles managers use this data to monitor the “state of the quality” at each plant. The multidimensional analysis capability provided by ShowCase Essbase enables management to drill down and quickly determine the cause of quality issues. This means that problems can often be corrected before shipment to customers. The visual display capabilities of ShowCase Analyzer™, such as “traffic lighting,” highlight “out-of-bounds” performance levels, making quick assessment and comparative analysis of results easier than ever before.

National Textiles reduced the overall defect levels reported by its customers to nearly 50 percent of the levels reported before the first components of this system were implemented. As a result, National Textiles can give its customers better products at a lower cost, and profitability improvements are measured in millions of dollars per year.
PUMA North America Optimizes Inventory Management

PUMA North America, a major producer of athletic footwear, apparel, and accessories, has independent sales consultants who are required to make important daily business decisions based on data regarding orders, shipments, and product availability.

Employing SPSS predictive analytics software, PUMA quickly arms its sales consultants with information that drives decisions to optimize inventory and order management processes.

PUMA's data was housed in an enterprise resource planning (ERP) system that provided limited reporting capabilities. To view sales data, sales people contacted PUMA's internal database analysts, who sorted through the database, extracted the requested information, and forwarded it to the sales representatives via e-mail. Sales people would then import the information into an application, view it, and make the appropriate decisions. For analysts, the majority of their daily tasks focused on fielding requests rather than on proactively managing the database. It took sales staff hours to receive the information they needed.

Recognizing the inadequacy of its ERP reporting system, PUMA selected three software packages from SPSS' ShowCase Suite: Enterprise Reporting™, Query, and Report Writer. These products helped PUMA gain a better view of its sales activity and provide its sales force with updated information to make more informed purchasing decisions. With SPSS' reporting capabilities, PUMA can now create any type of report it wants and share it with people organization-wide.

The ShowCase reports also track individual store performance on an hourly, monthly, or yearly basis and measure how stores compare with one another. If sales of a particular shoe model increase, PUMA can ramp up production of that shoe. Likewise, if a store falters, PUMA can shift inventory elsewhere or close the store entirely.

PUMA has replaced 80 percent of its ERP reports by using SPSS technologies. It has slashed valuable time off its reporting processes, improving the company's ability to compete more effectively with its rivals.
Yamaha Motor Europe Keeps Pace with Customers

Yamaha Motor Europe N.V. (YME) is the European headquarters of Yamaha Motor Corporation. YME markets and sells Yamaha motorcycles, as well as a variety of land vehicles and watercraft, in 24 European countries.

In 2001, the company developed the Yamaha Design Café (www.yamaha-motor-europe.com/designcafe), an online portal that delivers interesting stories on Yamaha Motor’s latest sports bikes geared toward YME’s core audience—sports bike enthusiasts. Accompanying the stories are links to surveys, which provide a cost-effective means of collecting consumer data. Hennes Fischer, YME’s product planning consultant, used mrInterview from SPSS—a product within the company’s Dimensions survey research technology platform—to develop and field the Design Café surveys. Familiarity with SPSS products was just one reason Fischer chose the SPSS survey application.

“SPSS’ mrInterview was the only software that gave me the flexibility to design a questionnaire offline; other versions forced you to compose questionnaires on the server. Likewise, mrTranslate offered the best translation abilities and was the easiest to use—a necessity since the majority of our research is multilingual. Finally, the people at SPSS were true professionals. They listened to my needs and met all requests.”

– Hennes Fischer
Product Planning Consultant
Yamaha Motor Europe

Yamaha Motor Europe saves time and reduces costs since the new product development team can now conduct focus groups with more specific information gathered by mrInterview beforehand; Web results also make some travel unnecessary. Beyond product planning, YME uses mrInterview to conduct internal research, asking dealers questions on a range of issues, from logistics to product evaluation. These results are then shared with logistics personnel, who can help dealers address bike delivery and other issues.

“It’s extremely important to stay in touch with how our customers feel,” said YME’s Fischer. “Thanks to mrInterview, we never feel out of the loop, which gives us confidence that we’re always delivering a product that truly meets their expectations.”
Market Research: Meeting Exacting Needs

The top 10 largest market research firms use SPSS software

SPSS is the world’s most widely used survey deployment and analysis technology. SPSS supports professional survey researchers in the market research industry (MRI), along with their counterparts in business, academia, and government agencies. Ninety-six percent of the companies on the Honomichl Global 25, rely on SPSS technology.

SPSS predictive analytics and market research solutions enable survey researchers to conduct both multimodal and multilingual research, and analyze collected data quickly and efficiently.

SPSS multimodal research provides companies with new ways to reach audiences, increasing response rates while protecting respondent privacy. For organizations surveying respondents who speak different languages, providing surveys in a native language helps increase both response rates and the reliability of the feedback.

SPSS also enables survey researchers to collect and analyze data faster. Since data is collected centrally, survey researchers can dramatically shorten the survey time-cycle and facilitate the analytical process. This is ideal for companies that conduct ad hoc surveys to gain insights into their employees, customers, processes, or prospects, and need to convert data into meaningful results quickly.

SPSS enables the MRI to meet the most exacting requirements of both internal and external clients by offering comprehensive predictive analytics and survey research solutions.
Research Foundation Increases Survey Respondent Participation

Survey respondents are the lifeblood of the Centers for Public Health Research and Evaluation (CPRHE) and its mission to improve the public’s health and welfare. As part of Battelle Memorial Institute, a non-profit research foundation, CPRHE specializes in studying health and its determinants for the U.S. Department of Health and Human Services, state and local agencies, healthcare providers, private industry, and employee groups.

Facing a decline in respondent participation, the CPHRE needed a solution to keep its most valuable resource engaged in its survey research efforts. To provide more options for its respondents to participate in research studies, CPHRE chose SPSS software to add Web and paper-based survey capabilities.

Multimodal interviewing is “the future of survey research,” according to Bill Grady, health research leader at CPHRE. Grady introduced mrPaper and mrInterview from SPSS’ Dimensions platform to CPHRE’s survey division. “With mrPaper and mrInterview, you can give people the option to do the survey on paper or access it on the Web, and the survey looks identical,” said Grady.

Grady explained, “Most of our work is with CATI (computer-assisted telephone interviewing) but people are increasingly reluctant to participate, so response rates are dropping. We are extremely interested in doing multimode surveys as a way to improve participation rates.” Already some of CPHRE’s clients are insisting on a Web completion option for their offline surveys.

Even for Web-only surveys, Grady finds mrPaper useful. “It is very difficult to show a Web survey to a client, so it is convenient to be able to print it out, including all the routing and other instructions.”

“There are other complementary technologies that we work with here,” said Grady. “The Dimensions Data Model allows us to define data for these relatively easily. We can also use the Dimensions Data Model to build in a lot of range and consistency checks for data quality. And since SPSS is one of our data analytic technologies, it means this integrates nicely with the analysis software we use.”
Directions Research Expands Business with Online Survey Research

Directions Research, Inc., a full-service, custom market research firm, recognized that the market research industry was embracing Web-based interviewing as an integral method for conducting surveys. In response to this trend, the organization searched for a cost-effective, outsourced solution that would allow it to conduct customized online market research, and selected SPSS Survey Hosting Services.

By outsourcing its online research function to SPSS, Directions is able to focus on interpreting results and providing superior consultation services to its clients. Working with SPSS, Directions has reduced turnaround time from two weeks to one week. Julie Thrash, senior research manager for Directions, credits the teamwork between Directions and SPSS for the increased level of efficiency.

“There is a tremendous synergy between Directions Research and SPSS,” said Thrash. “After drafting our clients’ questionnaires, SPSS makes them Web-friendly for respondents, conducts the survey, and obtains the results. The combined strengths of both companies allow us to turn around projects very quickly.”

In addition, the move to online surveys has opened new avenues of market research that were previously unavailable via phone interviews. For instance, respondents to financial services surveys do not typically divulge information related to debt loads and credit cards to call center agents. Yet they tend to reveal this same information when providing answers online.

“We won a client last year that is going to be a top-five or -six client this year, and half of their business will be online,” said Steve Wilde, Directions’ vice president of operations. “We wouldn’t have won it without SPSS.”
Gallup Clients Get Answers with a Single Mouseclick

The Gallup Organization, one of the world’s largest management consulting firms, with more than 3,000 employees in 25 countries, needed to give its clients a spot on the Web where they could easily access data and run their own analyses to create custom tables and charts. To address this need, Gallup and consultants from SPSS used SPSS predictive analytics software to develop a Web-based data access and analysis application for Gallup clients.

SPSS and Gallup developed an online solution that enables Gallup clients to access customized data and deploy analytical applications over the Web. The Web interface is designed to be completely intuitive, so that users need only click on an icon to run specified analyses, giving them instant tables, graphs, frequency counts, or whichever analytics are programmed.

Gallup’s clients typically track a number of factors, on a weekly or monthly basis, that influence the decisions they make about products and services. Gallup’s and SPSS’ Web-based solution gives clients access to this data and data analysis more quickly than has ever been possible—allowing more timely responses to its customers’ needs. As soon as the tracking information is available, Gallup updates the client database with the new data and makes it immediately available online.

Now Gallup clients can simply go to the dedicated Web site, click on an icon specific to their region, and get the information and analyses they need. All the data is in one place, presented in a manageable format.

“The flexibility of the SPSS Web architecture makes it adaptable to specific user needs,” said Eldin Ehrlich, system engineer at Gallup. “Gallup has long been an advocate of providing the right tool to the right user, and the SPSS Web application fits in perfectly with this goal.”
The obvious benefit of the autodialer is in the efficiencies it offers. However, one should not overlook benefits such as improved interviewer morale, better quality, and the ability to add value to the research by the effective playing and recording of audio.”

— Mike Leigh
Data Processing Director
Millward Brown

Millward Brown Gains a Global Advantage

Millward Brown, one of the world’s largest research agencies, is a leader in the field of brand equity research. After an extensive search for a single technology platform capable of consolidating all of its data collection activities worldwide, Millward Brown selected SPSS’ Dimensions survey research platform. Now, after implementing the technology across the globe, the firm realizes the benefits in improved consistency and integrity.

During the 90s, Millward Brown realized the potential of the Internet. Throughout the agency’s worldwide offices, a variety of Web applications were developed. As a result, the research agency had 10 different data collection tools, some internally developed, some purchased, all with separate infrastructures.

Choosing a technological successor was a demanding task. Millward Brown mobilized a global, 20-person team to identify all the company’s needs. In total, the company evaluated six products against 200 requirements. Key criteria included providing a core data repository and a common set of collection, analysis, and design tools. The solution needed to have robust multilingual and multimodal capabilities, and allow Millward Brown to differentiate its products and services through customization.

SPSS’ Dimensions, when combined with custom development from its own internal development team, enabled Millward Brown to create the global research infrastructure it envisaged. Millward Brown has consolidated from eight survey design tools to two. It has reduced its data collection tools to three, with one more reduction likely.

“By choosing Dimensions for our software needs, we are now able to maximize our ability to cover the research value chain in terms of collecting, processing, and publishing data results globally, while providing regionalized and localized capabilities,” said Martin Edwards, IT director, Millward Brown Group U.K. “Dimensions’ open platform; scalability; and ability to enable us to customize, optimize, and control the research process, made it the logical choice for us.”
NOP World Saves Time, Money by Standardizing Web Platform

NOP World conducts primary custom and syndicated research for marketers, advertising agencies, and media on a worldwide basis. Global consolidation within the NOP World group through the acquisition of numerous research agencies had resulted in a diverse range of technologies in different offices. NOP World chose to adopt SPSS software as the standard technology platform for its Web research activities worldwide.

Realizing the potential of the data scattered across NOP World operations was going to take precious time and effort, unless a new generation of tools could be forged that would unlock the data without it reformatting and reprocessing. NOP World set up a task force to evaluate the latest, best-of-breed Web-enabled technology available.

David Zotter, head of developing technologies at NOP World, also wanted to know what was going on underneath the technology, and engaged a firm of technical auditors to dissect the underlying architecture of each competing system. Zotter particularly wanted the technical assessment to consider each system’s openness, because if the chosen solution was not open enough, any software he developed would require more effort to create, and would not benefit from sharing data or resources with the main applications.

“After extensively reviewing the Web data collection software available in the marketplace, we came to the view that SPSS’ Dimensions survey research platform most effectively matched our requirements,” said Zotter. “Generally, systems are not open, especially in the ASP (application service provider) world. You cannot get directly to the database. Many give the impression of being open, but the reality is different.”

SPSS’ Dimensions software is now providing NOP World users across the globe with the shared tools and resources that the company needs to achieve greater economies of scale. With the use of Dimensions, a small team of NOP World developers has been able to deliver a series of high-quality, Web-enabled applications on an ambitious schedule of one major new product every three months. SPSS enables the firm to win business on the strength of its innovative approach, while reducing the internal cost of providing services on a global basis.
Retail: Enhanced Operational Insight

SPSS is used by the leading general merchandise retailer in the U.S.

Retailers today face many obstacles to achieving growth and revenue targets. In an industry characterized by increased competition, globalization, diversified sales channels, and changing customer demands, retailers are looking inward to reduce operational costs and derive greater value from brands, customers, and employees.

For years, retailers have relied on predictive analytics from SPSS to provide enhanced customer and operational insight. SPSS enables retailers to increase customer value and overall revenues, develop successful new products and services, determine profitable sites for new stores, and improve existing stores.

In the midst of fierce competition, retailers must find ways to differentiate themselves to consumers. By leveraging SPSS predictive analytics, retailers are able to increase sales to existing customers, improve inbound and outbound call center revenue, and provide consistent, coordinated interactions across all channels to improve customer satisfaction and promote loyalty.

SPSS offers a variety of ways for retailers to learn about their customers, including analyzing multiple customer communications (call center notes and transcripts, e-mails, responses to open-ended survey questions, etc.) for opinions and suggestions, collecting customer information at every touch point, and predicting which product concepts will be best received by customers and prospects.

Store location and design are critical to retail success. SPSS software enables retailers to determine optimum interior design for maximizing sales and delivering a compelling shopping experience, as well as predict the best new store locations, helping them avoid entering saturated or nearly saturated markets.

From regional chains to global online companies, SPSS helps these retailers improve everything from marketing and product development to customer retention and site selection. With SPSS predictive analytics, retailers across categories are able to make better, more informed decisions throughout their organizations.
Chase-Pitkin Home and Garden Fights Shrink

Chase-Pitkin Home and Garden, a division of supermarket chain Wegmans Food Markets, Inc., operates 15 home improvement stores throughout upstate New York and has more than 2,600 employees.

Chase-Pitkin faced a problem known in the retail industry as “shrink”—an unexplained absence of product. Shrink can occur a variety of ways, such as through theft or a clerical error in receiving. For instance, a dishonest cashier may scan only some of the items, a practice known as “sweetheating.” Shrink can also occur through accounting issues in receiving or when items are transferred between stores.

To reduce the occurrence of shrink, Chase-Pitkin’s IT department searched for a business information system that could track items and uncover sources of shrink.

Chase-Pitkin implemented SPSS’ predictive analytics software, specifically a user-friendly, interdepartmental software solution, the ShowCase Suite, that enables users to track items and calculate shrink. SPSS’ ShowCase Suite is now used corporate-wide as the source for all store information, enabling departments to uncover trends and make quicker, more strategic decisions.

The ShowCase Suite enables enterprises to efficiently organize and update their data (through Showcase Warehouse Builder), analyze it from multiple perspectives (using Showcase Essbase), study it graphically through a Web browser (with Showcase Analyzer), and create presentation-quality reports (using ShowCase Report Writer).

Chase-Pitkin’s IT team valued the ease with which it could implement the software, saving money that otherwise would have been used to compensate consultants. Using ShowCase, Chase-Pitkin successfully identified the top 16 items that represented 50 percent of their shrink.

By focusing on these 16 items, including monitoring them with store cameras, Chase-Pitkin managers were able to determine that shoplifters smuggled these particular items. They have since developed policies to prevent theft and also now inventory these items on a weekly basis. As a result, shrink on these items has been reduced by more than 50 percent.
World’s Largest Mail-Order Wine Company Personalizes Customer Offers

Direct Wines, the world’s largest mail order wine company, is an experienced database user, having first installed a solution 15 years ago. However, it ultimately found that its existing systems could not cope with the volume and number of mailings.

Direct Wines worked with SPSS to reach customers with specialized offers. The use of SPSS software is helping Direct Wines to build on its existing database and personalize customer offers more efficiently.

Direct Wines searched the market for marketing software and looked at most of the major solutions, including SAS®, SPSS, and Business Objects®. According to Jon White, Direct Wines customer database analyst, “We were looking for a huge leap in function and greater flexibility to do the things we wanted to do without being dictated to by the limitations of the system. We also wanted a system that would be user friendly and not too statistical, so that non-expert users could take advantage of it.”

Direct Wines has a server running SPSS Server and three workstations running the SPSS client version. SPSS is also used as the data-retrieval system, taking data from an Oracle® database. Direct Wines was confident that SPSS met all the necessary criteria. White stated, “We could not have grown as a company without SPSS.”

Direct Wines is also impressed with the added functionality in each new version of SPSS. White explained, “Each new version is always better than the last.”

White adds, “At first sight, SPSS has an interface with many different statistics options and transformation tools. However, the speed of its transformations and manipulation is staggering, and its ability to store syntax and scripts allows analysis to be repeated many times with ease.”
Save Mart Supermarkets Stays Ahead of Competition

Save Mart Supermarkets, a 120-store chain in California, is employing SPSS predictive analytics software to fend off competitors in its markets by tightly controlling category management and in-line profit margins.

Save Mart’s use of the ShowCase Suite from SPSS, a business intelligence and data mining solution for organizations using the IBM eServer iSeries (AS/400) computing platform, quickly evolved into a key business tool supporting strategic and tactical business decisions across Save Mart’s operations.

With SPSS’ ShowCase Suite, Save Mart can fully assess the dynamics of each store’s performance and make the right decisions on the inventory, pricing, and promotional activities that will benefit each store.

“With us facing tough competition from national supermarket chains, it’s critical that we immediately understand how each store’s categories are being affected by market changes,” said Sandy Strube, Save Mart financial analysis manager. “SPSS enables us to make quick, informed decisions and plays a large part in keeping Save Mart ahead of our competition.”

“SPSS’ predictive analytics software has brought valuable business insight to decision makers throughout our organization, from executives to store managers,” added Strube. “This helps us make sound decisions to keep our customers happy and our business strong and viable.”
Sofmap Marketers Gain Customer Insight

Sofmap Company, Ltd., Tokyo, is one of Japan’s top personal computer and software retailers, with 40 retail stores located throughout the country.

Sofmap managers believed that many customers had difficulty making hardware and software purchasing decisions, which was hindering online sales. Sofmap used SPSS’ predictive analytics software to build an engine that recommends appropriate products based on customers’ profiles, which are built from information gathered during the online registration process and from past transactions.

Sofmap needed to quickly and easily mine the information that was buried in its customer and transactional databases. The company wanted a software package that its marketing staff, which has the best understanding of customer behavior, could use to perform its own analysis. Clementine’s ease-of-use enabled Sofmap’s marketers to analyze transaction data and information from the customer database, and generate the business rules used in the recommendation engine.

Sofmap marketers collected a wide range of information for use in building models of purchasing behavior. Using Clementine to analyze this information, the marketing staff clustered customers based on what it called a “digital lifestyle model.” The model was then used to construct both the business rules and the recommendation engine, as well as to personalize the site for returning customers.

The marketers also identified the most profitable customers, based on shopping frequency and purchase size. This enabled the new recommendation engine to focus on these customers in particular.

“We selected Clementine because it enables users without computer programming knowledge to develop very powerful analytical solutions,” said a Sofmap official. “This approach is so much more efficient than to have the marketers communicate the goals of the analysis to the programmers. Now the marketers can do the entire job themselves, which saves a considerable amount of time.”
Telecom: Effective Customer Marketing

80 percent of the telecommunications services companies listed on the S&P 500 use SPSS technology

Telecommunications companies face increasing competition for customers, due to accelerated technological advances and recent merger activity. Using predictive analytics from SPSS, telecom companies develop effective customer retention strategies, acquire new customers, and detect and prevent fraud. These organizations also employ SPSS to design and implement customer-friendly marketing programs and campaigns.

Traditional providers face the loss of customers as more people substitute their landline service with wireless phones. SPSS predictive analytics enables telecom companies to develop more effective customer retention strategies by identifying their most at-risk customers. With these enhanced insights, companies reduce costs by identifying the customers likely to churn, and then targeting them with offers and services to keep them loyal. SPSS predictive analytics also helps providers acquire profitable customers by creating offers based on behavioral profiles and then recommending the right bundle of products and services to attract prospects.

Telecommunications fraud is another area in which SPSS predictive analytics provides valuable insights. By identifying patterns that are common to fraud, companies can easily detect and investigate possible cases of fraud, including billing fraud, fraudulent payments, and unauthorized use of another subscriber’s minutes. SPSS not only uncovers existing instances of fraud, it helps prevent future occurrences as well, enabling providers to recoup more money while curtailing fraudulent activity.

Generating advanced insights into the attitudes and behavior of customers and prospects, predictive analytics also enables telecom companies to plan effective marketing programs and campaigns. Using real-time information generated by SPSS software, providers retain better control over marketing costs and accurately project revenues and margins.

The ongoing challenge for the telecommunications industry is to better understand the preferences of its customers and to then successfully offer the products and services that foster greater customer retention. With SPSS predictive analytics, telecom providers are gaining these critical customer insights to secure an advantage in this highly competitive industry.
BT Increases Effectiveness of Marketing Programs

To maintain its position as a leading global telecommunications company, BT realized it needed to better understand its extensive customer base. If the company could identify prospective customers' propensity to purchase various products and services, and then calculate their likely comparative value once they became customers, the organization could use this insight to develop new products targeted to specific customer groups. BT selected predictive analytics technology from SPSS to analyze customer data and build exploratory models for the company’s “Business Highway” campaign, targeting small business customers.

BT initially established a customer and campaign analysis team, headed by senior consultant Stephen O'Brien. The team used Clementine, SPSS’ data mining workbench, for data analysis, experimental modeling, identifying data quality issues, and eliminating data attributes not strongly associated with the purchase of Business Highway. The team also measured the predictive strength of individual data attributes in relation to the customer’s propensity to purchase.

Within a matter of weeks, O’Brien’s team delivered a “best prospects” list and related demographic charts to BT’s Business Highway sales and marketing departments. The results of this list increased BT’s direct mail response by 100 percent. “With Clementine, the exploratory data analysis and visualization we were able to do up front enabled us to develop satisfactory customer selection criteria,” said O’Brien. “Even before completing the final models, we were able to surpass our original target—and increase the campaign response rate by 100 percent.”

BT’s modeling program enables it to target customers over the life of products and campaigns, identify trends in the changing marketplace, and improve its penetration in different market sectors. And at every step, SPSS predictive analytics is supporting these efforts with incisive analyses. The payoff? As the Business Highway project shows, more profitable customers and higher sales.
Telecommunications Fraud Detected in Real-Time

There are many ways to avoid paying for telecommunications services, from stealing phone card numbers to bypassing phone circuitry. These types of fraudulent activities cost the telecommunications industry billions per year. ECtel Ltd. created FraudView™, a comprehensive fraud management solution that uses SPSS predictive analytics software.

FraudView is a fraud detection system that gathers information about calls in real-time and compares the calls against fraudulent scenarios produced by its MineView™ component. MineView uses Clementine to evaluate a sampling of an ECtel customer’s call data records and then generates the scenario that most accurately predicts fraud. If MineView flags the subscriber as fraudulent, an alert is automatically generated and filed into a case profile for the telecom investigator to examine.

For each subscriber, MineView calculates a suspicion score—the probability that a fraudulent subscriber is using a suspect number—based on data collected in real-time. Whenever this score exceeds the preset threshold, MineView sends an alert notifying the investigator of a suspicious subscriber. This real-time data collection is a significant advantage over other data mining systems, which compare data against the model at two-hour intervals.

“Upon seeing a single alert from MineView, the investigator is ready when a second call appears from that subscriber and can block that call as it’s happening,” explains Eric Kaplan, FraudView group manager, ECtel Ltd. Thus, money is saved because fraud is detected and can be acted upon immediately.

More than 150 blue-chip telecom service providers worldwide, including national carriers in Germany, France, China, and the United States, have turned to ECtel’s FraudView to manage fraud. According to Kaplan, “Selling a data mining product to a telecom provider has been traditionally difficult because they don’t have data mining experts on staff who can work conventional data mining tools. Clementine’s functionality allows ECtel to develop software based on Clementine as the internal data mining engine.”
France Telecom Increases Productivity and Customer Responsiveness

France Telecom is one of the world’s leading telecommunications carriers, with more than 118.6 million customers in 220 countries and territories. To rapidly capitalize on the enormous amount of information that flows through its organization daily, France Telecom chose SPSS predictive analytics software as part of its business intelligence information system, which is accessed by thousands of internal and external users.

With SPSS’ text mining technology, LexiQuest Mine, which is part of France Telecom’s Strateasy business intelligence information system, text information is quickly analyzed and the strategic monitoring of business information is accelerated. LexiQuest Mine has cut analysis times in half, which represents a clear productivity gain for the company and raises the responsiveness to specific customer demands.

“Strateasy enables companies to harness the strategic information relating to their customers, markets, or competitors. This solution brings together the most relevant capabilities for our clients on a secure and integrated platform,” said Gil Debret, director of France Telecom’s Business Intelligence Division. “LexiQuest Mine brings a new linguistic dimension to Strateasy. We can now give meaning to metadata and personalize key concepts.”

LexiQuest Mine acts as a linguistic extractor. Based on a sophisticated processor, it recognizes the language of documents, and extracts not only the thematic concepts but also the proper names of places and products.

The SPSS text mining technology is a dynamic tool that represents the identified concepts and their interactions in a color-coded, graphical map. “The mapping of concepts, and the graphs of their evolution over time, were used to evaluate the communication of our competitors,” said Magali Chambon, a consultant in France Telecom’s Business Intelligence Division. “This research enabled us to clarify issues and give managers greater visibility on the possible directions to take.”
SBC Communications Enhances Customer Satisfaction

SBC Communications Inc. (formerly Southwestern Bell) executives required a solution for identifying best practices in process improvement. With these insights, the company would be able to realize reduced costs, increase overall customer satisfaction, and strengthen its position in the market. To deliver these results in a comprehensive format easily understood by executives, the telecommunications company purchased predictive analytics technology from SPSS.

Mike Gallagher, area manager and resident quality consultant at SBC, was impressed with the ease-of-use of SPSS’ data management and statistical software, SPSS for Windows. According to Gallagher, “SPSS allows me to focus on the statistics without getting hung up on the specifics of the software.” He was also impressed by the open nature of the technology and its ability to work seamlessly with other software.

Gallagher uses SPSS predictive analytics almost daily on issues with the potential to affect nearly 10,000 employees in five states. For example, Gallagher analyzes internal data related to “repair repeats”—occasions when repair technicians must re-visit a site within ten days of the original visit. Initially examining about 850,000 records previously collected and stored in SBC’s mainframe system, SPSS technology enables Gallagher to analyze which variables had the most impact on repair repeats, and ultimately determine specific areas for improvement.

Since he is able to easily communicate the results of the analysis to company executives, his recommendations are swiftly implemented in the repair repeat process, resulting in significantly reduced expenses and increased customer satisfaction. Overall, SBC reduced the number of annual dispatches by about 15,000.

According to Gallagher, the success he enjoys with SPSS predictive analytics is due to “working with a significant amount of data quickly and flexibly. In that respect, SPSS is just the tool I required to pinpoint what we needed to focus on.”
Chile’s Leading Pay-TV Provider Dials Down Churn

To develop more strategic marketing programs, VTR GlobalCom, Chile’s leading pay-TV provider, needed a sophisticated software solution to make sense of its vast customer database. After considering several packages, the Market Planning and Bundling Department purchased SPSS predictive analytics software.

“We searched for sophisticated analysis tools capable of interacting with large datasets and advanced statistical processes,” a Market Planning and Bundling Department spokesperson said. “SPSS for Windows and Clementine were the software packages that best fit our needs.”

The company’s Market Research division uses SPSS for Windows, a statistical and data management software package, to analyze, process, and interpret marketing surveys covering topics ranging from customer satisfaction to new product introductions.

The Market Planning and Bundling Department uses Clementine, a data mining workbench, to develop acquisition, cross-sell, up-sell, and churn models. According to the spokesperson, the department appreciates Clementine’s combination of “superior analytical power” and its “user-friendly interface.”

“With Clementine, we’re able to quickly predict who in our customer database is more likely to churn and then execute retention campaigns before it is too late,” the spokesperson added.

VTR also recognizes that it is critical to identify which customers are not worth keeping. Clementine allows VTR to identify a segment of impulse buyers that are not profitable. As a result, VTR sets higher entry requirements, avoiding the cost of acquiring and retaining these customers. In a single year, these types of marketing programs improved retention by 13 percent.

“Choosing SPSS for Windows and Clementine has been very advantageous,” the representative concluded. “Proof lies in the results achieved and the fact we rely so much on the tools. We will continue to seek other SPSS tools that will help us gain competitive advantage.”

“Choosing SPSS for Windows and Clementine has been very advantageous. Proof lies in the results achieved and the fact that we rely so much on the tools. We will continue to seek other SPSS tools that will help us gain competitive advantage.”

— Spokesperson for the Market Planning and Bundling Department

VTR GlobalCom
## Index

<table>
<thead>
<tr>
<th>Application</th>
<th>Customer</th>
<th>Product</th>
<th>Vertical</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABN AMRO ........................................</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amicon .............................................</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AnswerTree .......................................</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atlanta Police Department ........................</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BT ................................................</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business monitoring ................................</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business operations .............................</td>
<td>27, 29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cabrillo College ..................................</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canon U.K. .......................................</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centers for Public Health Research and Evaluation</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chase-Pitkin Home and Garden ....................</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clementine .......................................</td>
<td>3, 10, 19, 42, 45, 46, 49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleo .............................................</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical research ................................</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corona Direct .....................................</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit Suisse ....................................</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criminal analysis ................................</td>
<td>17, 19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-sell/up-sell ................................ 13, 21, 24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer analysis ................................</td>
<td>42, 45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer retention ................................</td>
<td>10, 21, 49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer segmentation ...........................</td>
<td>49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Database marketing ................................</td>
<td>11, 13, 21, 24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions .......................................</td>
<td>4, 31, 33, 36, 37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions Data Model ...........................</td>
<td>33, 37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions mrInterview ..........................</td>
<td>31, 33, 36, 37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions mrPaper ................................</td>
<td>4, 33, 36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions mrScan ................................</td>
<td>4, 36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions mrStudio ................................</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions mrTables ................................</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions mrTranslate ..........................</td>
<td>31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct mail ......................................</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Wines .....................................</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directions Research, Inc ........................</td>
<td>34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECtE Ltd. ........................................</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education ........................................</td>
<td>2, 3, 4, 5, 6, 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational assessment ..........................</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic test processing ........................</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment management ...........................</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FBTO Verzekeringen ................................</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance ..........................................</td>
<td>8, 9, 10, 11, 12, 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Community Housing ..........................</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fortis Bank ......................................</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>France Telecom ....................................</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fraud detection ...................................</td>
<td>12, 46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fraud prevention ..................................</td>
<td>46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Gallup Organization ..........................</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE Aircraft Engines ................................</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government ......................................</td>
<td>14, 15, 16, 17, 18, 19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INHOLLAND .......................................</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance ........................................</td>
<td>20, 21, 22, 23, 24, 25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal communications ..........................</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory management ............................</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kent State University ............................</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lansing School District ..........................</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Law enforcement ..................................</td>
<td>15, 17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LexiQuest Mine ...................................</td>
<td>47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lloyds TSB .......................................</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Louisiana Commission on Law Enforcement .......</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing ....................................</td>
<td>26, 27, 28, 29, 30, 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market research ..................................</td>
<td>31, 34, 35, 36, 37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market research ..................................</td>
<td>32, 33, 34, 35, 36, 37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing campaigns ................................</td>
<td>22, 23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millward Brown ...................................</td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natexis Assurances ................................</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Textiles ................................</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NetGenesis ......................................</td>
<td>9, 28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York University ................................</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOP World .......................................</td>
<td>37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalized customer marketing ..................</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PredictiveCallCenter .............................</td>
<td>13, 23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PredictiveMarketing .............................</td>
<td>11, 13, 21, 22, 23, 24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PredictiveWebSite ................................</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process management ................................</td>
<td>25, 48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public safety ....................................</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUMA North America ................................</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Queensland Fire and Rescue ......................</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail ...........................................</td>
<td>38, 39, 40, 41, 42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail category management ......................</td>
<td>41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richmond (Virginia) Police Department ..........</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Save Mart Supermarkets ..........................</td>
<td>41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBC Communications ................................</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shenandoah Life Insurance Company ............</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ShowCase Suite ..................................</td>
<td>25, 27, 29, 30, 39, 41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shrink reduction ..................................</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sofmap Company Ltd ................................</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spaarbeleg ......................................</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPSS for Mac OS X ................................</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPSS for Windows ...............................</td>
<td>6, 7, 15, 16, 17, 18, 40, 48, 49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPSS for Mac OS X ................................</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPSS Survey Hosting Services ...................</td>
<td>34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPSS Text Analysis for Surveys ..................</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPSS Training Services ..........................</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPSS Worldwide Services ........................</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student learning ..................................</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey research ...................................</td>
<td>16, 33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telecom ..........................................</td>
<td>44, 45, 46, 47, 48, 49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training for Web monitoring .....................</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VTR GlobalCom ...................................</td>
<td>49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yamaha Motor Europe N.V. ........................</td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
About SPSS Inc.

For more than 37 years, SPSS Inc. (NASDAQ: SPSS) has developed analytics software that helps organizations gain greater value from their data.

SPSS has become a leader in predictive analytics technologies through a combination of commitment to innovation and dedication to customers. Organizations today face the challenges of ever-increasing volumes of complex enterprise data, cutthroat competition over attracting and retaining customers, and costs associated with fraud and waste. To help them overcome these challenges, SPSS provides a range of predictive analytics software and services.

With SPSS predictive analytics solutions, organizations are able to direct, optimize, and automate specific decision processes to meet organizational goals. SPSS software examines data on past circumstances, present events, and projected future actions using advanced analytics, and then delivers recommended actions to the people and systems that can take effective action.

More than 250,000 government, academic, and commercial customers, including more than 95 percent of the Fortune 1000, rely on SPSS technology to help increase revenue, reduce costs, improve processes, and detect and prevent fraud.

For additional information, please visit [www.spss.com](http://www.spss.com).