SPSS

What is SPSS?

SPSS is short for Statistical Package for the Social Sciences, and it's used by various kinds of researchers for complex statistical data analysis.

The SPSS software package was created for the management and statistical analysis of social science data. It was was originally launched in 1968 by SPSS Inc., and was later acquired by IBM in 2009.

Officially dubbed IBM SPSS Statistics, most users still refer to it as SPSS. As the world standard for social science data analysis, SPSS is widely coveted due it's straightforward and English-like command language and impressively thorough user manual.

SPSS is used by market researchers, health researchers, survey companies, government entities, education researchers, marketing organizations, data miners, and many more for the processing and analyzing of survey data.

While SurveyGizmo has powerful built-in reporting features, when it comes to in-depth statistical analysis researchers consider SPSS the best-in-class solution.

Most top research agencies use SPSS to analyze survey data and mine text data so that they can get the most out of their research projects.

With SPSS Statistics you can:

Analyze and better understand your data, and solve complex business and research problems through a user-friendly interface.

More quickly understand large and complex data sets with advanced statistical procedures that help ensure high accuracy and quality decision-making.

Use extensions, Python and R programming language code to integrate with open-source software.

More easily select and manage your software with flexible deployment options.

SPSS (Statistical Package for the Social Sciences), also known as IBM SPSS Statistics, is a software package used for the analysis of statistical data.

Although the name of SPSS reflects its original use in the field of social sciences, its use has since expanded into other data markets. SPSS is commonly used in healthcare, marketing and education research.

The types of data analyzed using SPSS is widely varied. Common sources include survey results, organization customer databases, Google Analytics, scientific research results and server log files. SPSS supports both analysis and modification of many kinds of data and almost all formats of structured data. The software supports spreadsheets, plain text files and relational databases such as SQL, SATA and SAS.

SPSS provides data analysis for descriptive and bivariate statistics, numeral outcome predictions and predictions for identifying groups. The software also provides data transformation, graphing and direct marketing features.

The software interface displays open data similarly to a spreadsheet in its main view. With its secondary variable view, the metadata that describes the variables and data entries present in the data file are displayed.

The software package was created in 1968 by SPSS Inc. and was acquired by IBM in 2009. While the software was renamed to IBM SPSS Statistics, it is still commonly referred to as just SPSS.

The Core Functions of SPSS

SPSS offers four programs that assist researchers with their complex data analysis needs.

Statistics Program

SPSS's Statistics program provides a plethora of basic statistical functions, some of which include frequencies, cross tabulation, and bivariate statistics.

Modeler Program

SPSS's Modeler program enables researchers to build and validate predictive models using advanced statistical procedures.

Text Analytics for Surveys Program

SPSS's Text Analytics for Surveys program helps survey administrators uncover powerful insights from responses to open ended survey questions.

Visualization Designer

SPSS's Visualization Designer program allows researchers to use their data to create a wide variety of visuals like density charts and radial boxplots with ease.

In addition to the four programs mentioned above, SPSS also provides solutions for data management, which allow researchers to perform case selection, create derived data, and perform file reshaping.

SPSS also offers the feature solution of data documentation, which allows researchers to store a metadata dictionary. This metadata dictionary acts as a centralized repository of information pertaining to data such as meaning, relationships to other data, origin, usage, and format.

There are a handful of statistical methods that can be leveraged in SPSS, including:

- Descriptive statistics, including methodologies such as frequencies, cross tabulation, and descriptive ratio statistics.
- Bivariate statistics, including methodologies such as analysis of variance (ANOVA), means, correlation, and nonparametric tests.
 - Numeral outcome prediction such as linear regression.
- Prediction for identifying groups, including methodologies such as cluster analysis and factor analysis.[sep]

The Benefits of Using SPSS for Survey Data Analysis

- SPSS is an extremely powerful tool for manipulating and deciphering survey data.
- Exporting survey data to SPSS's proprietary .SAV format makes the process of pulling, manipulating, and analyzing data clean and easy.
- By doing so, SPSS will automatically set up and import designated variable names, variable types, titles, and value labels, meaning that minimal legwork is required from researchers.

Once survey data is exported to SPSS, the opportunities for statistical analysis are practically endless.

In short, remember to use SPSS when you need a flexible, customizable way to get super granular on even the most complex data sets. This gives you, the researcher, more time to do what you do best and identify trends, develop predictive models, and draw informed conclusions.