



# Getting Started with IBM SPSS Statistics

**Jarlath Quinn – Analytics Consultant**

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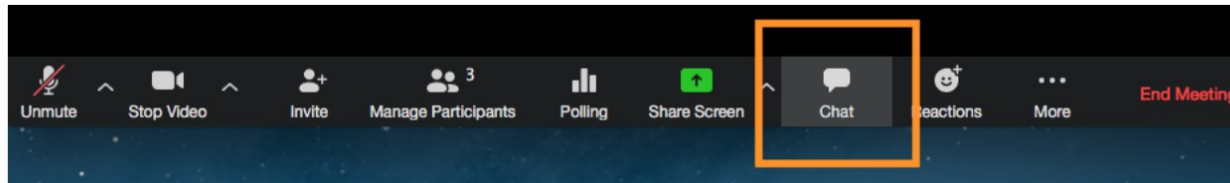
# Getting Started with IBM SPSS Statistics

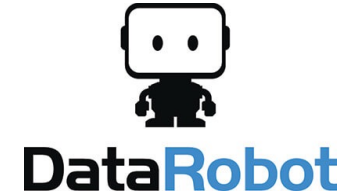
**Jarlath Quinn – Analytics Consultant**

**Just waiting for all attendees to join...**

# FAQ's

- Is this session being recorded? Yes
- Can I get a copy of the slides? Yes, we'll email links to download materials after the session has ended.
- Can we arrange a re-run for colleagues? Yes, just ask us.
- How can I ask questions? All lines are muted so please use the chat panel – if we run out of time we will follow up with you.





- Gold accredited partner to IBM, Predictive Solutions and DataRobot specialising in advanced analytics & big data technologies
- Work with open source technologies (R, Python, Spark etc.)
- Team each has 15 to 30 years of experience working in the advanced and predictive analytics industry

Deep experience of applied advanced analytics applications across sectors

- Retail
- Gaming
- Utilities
- Insurance
- Telecommunications
- Media
- FMCG



# Agenda

- An overview of SPSS Statistics
- Reading data from databases and spreadsheets
- Formatting the data
- Creating filters and banded fields
- Using SPSS Tables functionality to create publication-quality reports
- Finding statistically significant differences in groups

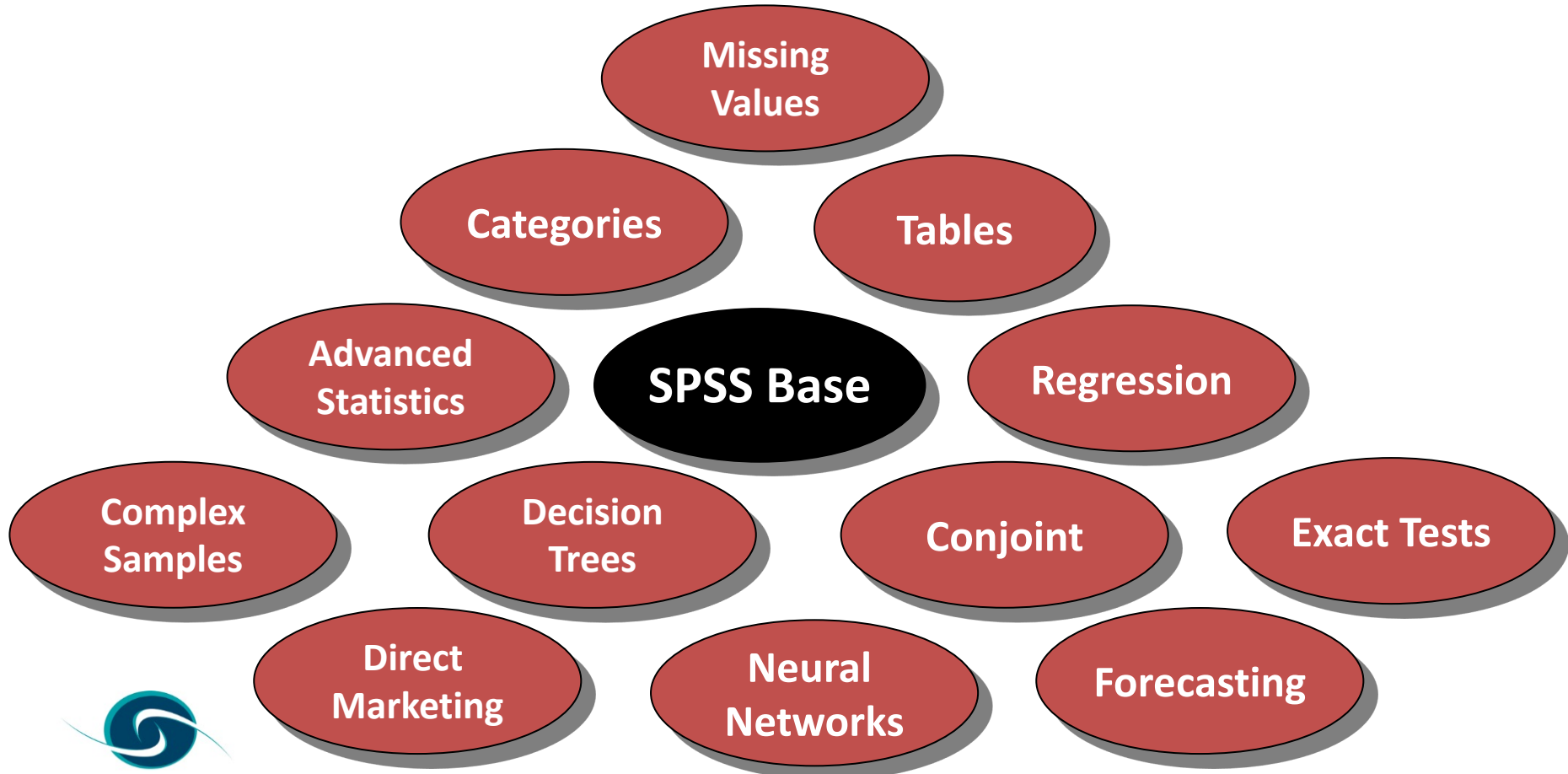


# An Overview of IBM SPSS Statistics

# SPSS Statistics

- Since 1968 one of the world's most popular data analysis and statistical interrogation platforms
- Used for everything from epidemiology studies , survey research and business reporting to direct marketing, credit risk, process modelling and asset management
- Statistics included in the base software:
  - Descriptive statistics: Cross tabulation, Frequencies, Descriptives statistics
  - Statistical Tests: T-test, ANOVA, Correlation
  - Prediction for numerical outcomes: Linear regression
  - Identifying relationships and groups: Factor analysis, Cluster analysis

# IBM SPSS Statistics Base & Associated Modules



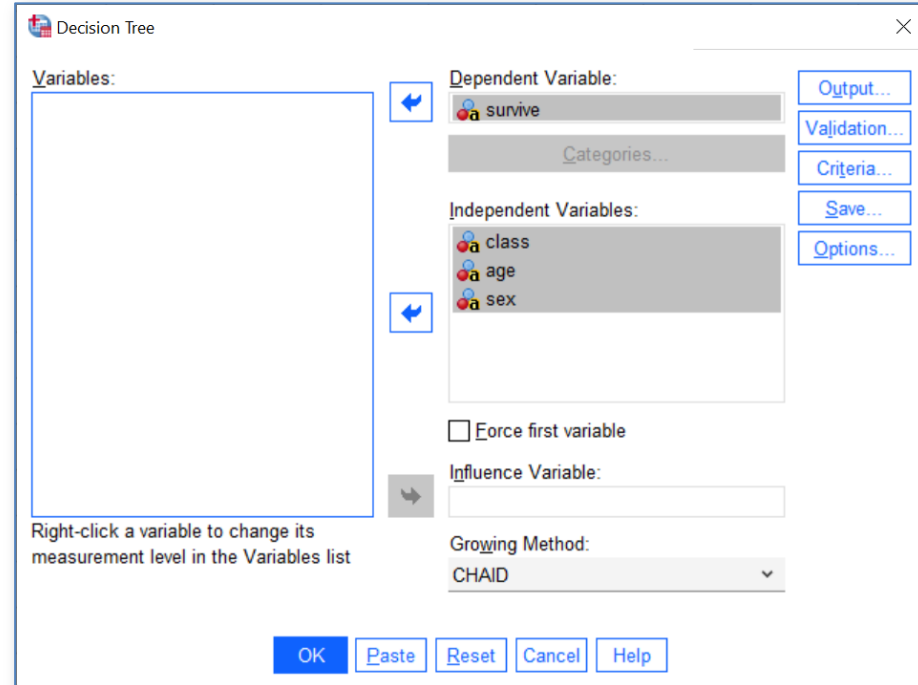




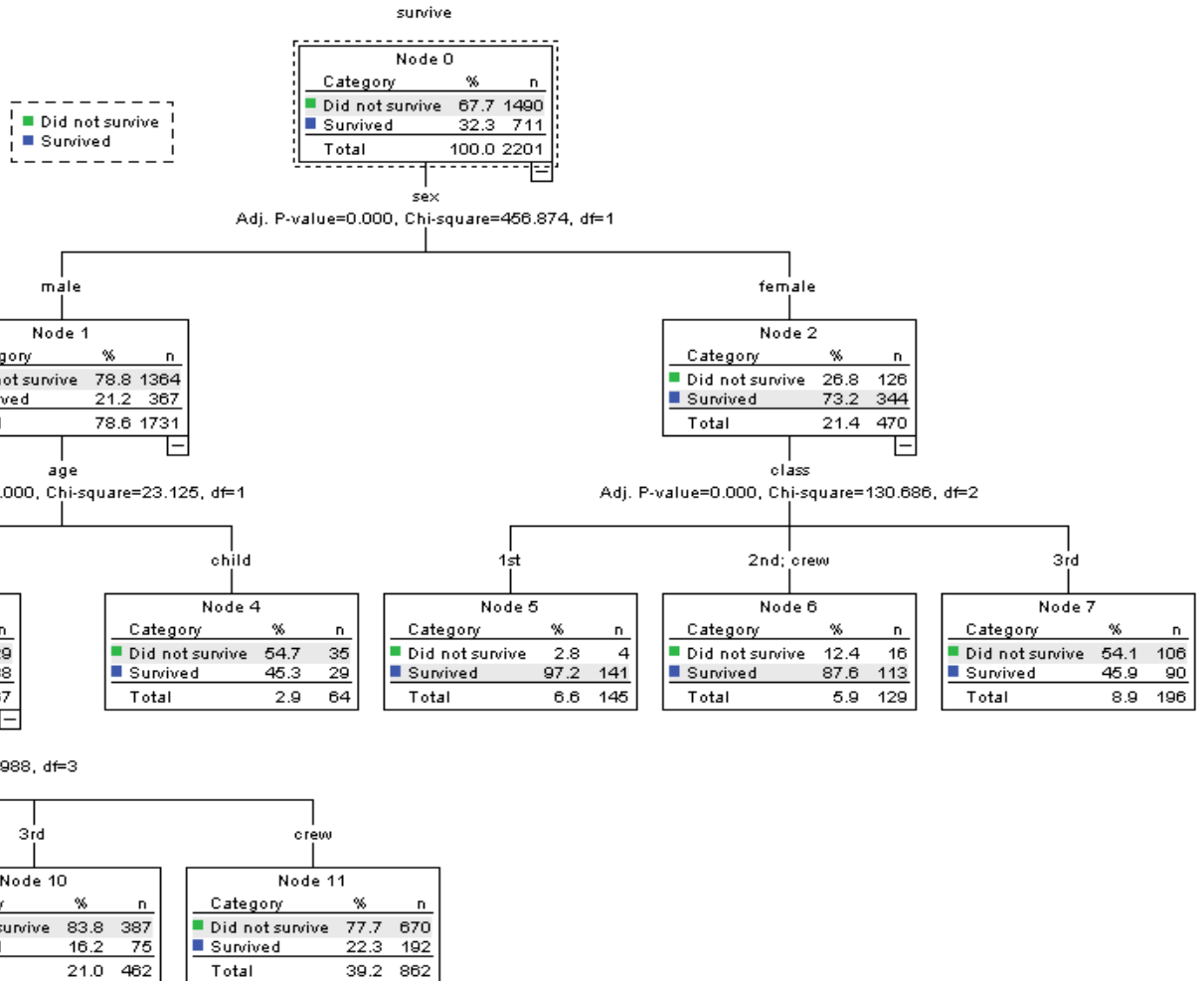
# Example Module: IBM SPSS Decision Trees

# SPSS Decision Trees

- Decision trees are used to:
  - Build predictive models
  - Create profiles of customers/employees/clients
  - Find key behavioural segments
- Very popular because they:
  - Represent models visually
  - Are easy to understand



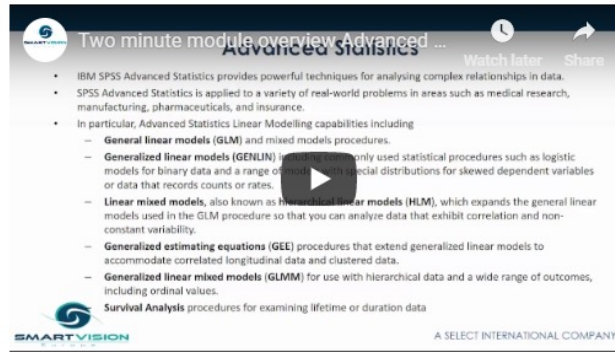
# IBM SPSS Decision Trees



# Smart Vision's Short Video Guides to SPSS Modules

## IBM SPSS Advanced Statistics

### Two minute module overview



## What's in the Advanced Statistics module?

IBM SPSS Advanced Statistics provides powerful techniques for real-world problems in a variety of disciplines, including medical research, manufacturing, pharmaceuticals, and market research. It is an extremely 'analytically rich' SPSS Statistics module. Advanced Statistics includes a very wide range of multivariate procedures for investigating complex relationships in data. A number of the procedures in IBM SPSS Advanced Statistics are relatively technical in a statistical sense. In particular, Advanced Statistics encompasses General and Generalized Linear Modelling capabilities.

- General Linear Models allow you to model relationships and interactions between many factors. The general linear model incorporates a number of different statistical models: ANOVA, MANOVA, ANCOVA, Repeated Measures etc.
- An example of GLM would be one where we wish to see if males spend more money on average in a particular store than females when they have been given a particular discount coupon. The model can be made more complicated if we include more than one type of coupon or test to see whether region or age makes a difference.
- Generalized Linear Models are an extension of General Linear Models in that they are able to work with a greater range of data distributions. In particular, the model allows for the dependent variable to have a non-normal distribution.

## SPSS modules

[IBM® SPSS® Statistics Base](#)

[IBM® SPSS® Advanced Statistics](#)

[IBM® SPSS® Bootstrapping](#)

[IBM® SPSS® Categories](#)

[IBM® SPSS® Complex Samples](#)

[IBM® SPSS® Conjoint](#)

[IBM® SPSS® Custom Tables](#)

[IBM® SPSS® Data Preparation](#)

[IBM® SPSS® Decision Trees](#)

[IBM® SPSS® Direct Marketing](#)

[IBM® SPSS® Exact Tests](#)

[IBM® SPSS® Forecasting](#)

[IBM® SPSS® Missing Values](#)

[IBM® SPSS® Neural Networks](#)

[IBM® SPSS® Regression](#)

[IBM® SPSS® Bundles](#)

# Three Key Capabilities

The most effective users of technology like SPSS Statistics are able to demonstrate skills in three key areas:

1. Reading and formatting data
2. Transforming and manipulating data
3. Analysis and deployment of results



Let's take a closer look

# Additional Resources

- [SPSS FAQs](#) everything from finding out what you have installed to how to merge files or change the language
- [Video Guides](#) a wide range of SPSS “how to” topics with mini demos
- [SPSS Software](#) information on products, modules and pricing
- [Eat your greens](#) blog series on statistical testing and procedures

Online training materials  
**free** to Smart Vision  
customers or available for  
purchase



Factor and Cluster Analysis with  
IBM SPSS Statistics

£75.00  
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Introduction to Time Series  
Forecasting with IBM SPSS  
Statistics

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Understanding and applying  
logistic regression techniques in  
SPSS Statistics

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Understanding and Applying  
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SPSS Statistics

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Building predictive models in  
SPSS Modeler

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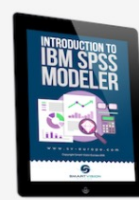


Statistical and significance  
testing in SPSS Statistics

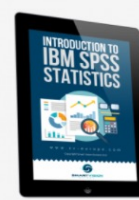
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Working with decision trees in  
SPSS Statistics



Introduction to SPSS Modeler  
course



Introduction to IBM SPSS  
Statistics course



# Working with Smart Vision Europe

- **Consulting Services**

## Project Support

Purchase 1-2 days of consultancy time to have an expert work alongside you on your own project

## Analytics Advice

Give us 3-5 days to investigate your data & analytical strategy and we'll present our recommendations re: improvements & alternatives

## Analytical Deep-Dive

Let us explore your data landscape to test hypotheses, identify problem areas, find key outcome drivers or develop new applications



# Working with Smart Vision Europe Ltd.

- **Sourcing Software**
  - You can buy your analytical software from us often with discounts
  - Assist with selection, pilot, implementation & support of analytical tools
  - <http://www.sv-europe.com/buy-spss-online/>
- **Training and Consulting Services**
  - Guided consulting & training to develop in house skills
  - Delivery of classroom training courses / side by side training support
  - Identification & recruitment of analytical skills into your organisation
- **Advice and Support**
  - Offer ‘no strings attached’ technical and business advice relating to analytical activities
  - Technical support services



Contact us:

+44 (0)207 786 3568

[info@sv-europe.com](mailto:info@sv-europe.com)

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Thank you