

### **Principles of Business Analytics**

# **Course Proposition and Executive Summary**

Companies today no longer just compete on the cheapest offerings; gone are the days where companies engage in price wars and out-slash each other on prices alone. Thomas Davenport, author of the book "Competing in Analytics", showed us just how analytics may be applied in business decision making, such that a competitive advantage may be achieved, through which consumers and customers are willing to pay a premium for what similar stores are offering. And Thomas Davenport is not the only advocate; In its Dec 2011 issue, the Harvard Business Review published an article titled "Know what your customers want before they do", stating just how retailers can nail the "next best offer" through analytics.

The private sector are not the only ones benefitting from the power of analytics. Unprecedented information explosion and multi-faceted public issues have driven the need for the public service to stay on top of the economical, societal and political situations. In light of immense uncertainties faced, the challenge for the public service is not only to make informed decisions but to offer intelligent solutions. By leveraging on the power of analytics, the public service is now able to respond with insights and foresights derived from the huge amount of data which previously had laid hidden and largely tapped.

Business leaders, who traditionally rely on intuition and instincts in their decision making, can now have at their disposal, an alternative source of information offering insights through the employment of analytics -- and be amazed by what their data is telling them.

In this course, participants will learn how to address business needs through the use of analytics, how some organizations have done it and what has been done to achieve them. Conducted interactively with case studies and real business problems, participants can expect to learn the principles behind the power of analytics.

### Who is this course for?

Covering theories and practical, this course addresses a wide variety of business issues and how it may be solved using analytics. It caters to people from a diverse background from Company Directors, who provides the organization's strategic vision and direction, to Professionals like Managers and Analysts looking to solve today's business problems using the power of analytics.

This course is also useful for participants from both private and public sector: - Industries range from fast moving consumer goods (FMCGs) and retail, to telecommunications (telco) and business consulting work; public agencies from the tax and revenue collection, education, health services, defense and security, manpower and human resource services will find this course relevant.

This course is designed for participants who may not have the relevant training in school or work but are keen to learn the ropes of analytics application in business world. Participants with relevant training will find this course offering refreshing insights and applying the principles of analytics in their work.

### **Course Content**

Overview: What is Analytics?

Principles of Analytics: Frameworks and Models

Gathering of data and information

Getting ready data and information

Analytics tools and techniques:

- Predictive Analytics,
- Segmentation Modeling,
- Association Rule Mining and,

Practical application: Applying principles of analytics using analytics software

\*The course will be conducted with computer-aided data analysis software and participants will get a chance to see how analytics are being applied in real-life scenario.

## **Pre-requisite**

Participants should ideally have attended the introductory course in statistics titled "Introduction to Statistics and Quantitative Data Analysis" or possessed the knowledge and/or skills in the introductory course prior to joining for this course.

#### **Mode of Assessment**

Participants are required to sit for an open book quiz which exemplifies the principles of business analytics.

#### **Price Schedule**

SGD\$990/pax Nett

### **Certificates/Awards**

Certificate of Performance/Achievement will be awarded if participant satisfies the course criteria.

#### **Profile of Trainer**

Mr. Ng Jinsheng joined IBM SPSS in 2008 as an Executive in Training and Consulting after his graduation from the National University of Singapore (NUS) with a Degree in Statistics and Applied Probability. During his stay in IBM SPSS, he has trained hundreds of participants from the public service and private sector in statistical and data mining concepts, tools and applications in solving business problems. He has also led consulting projects and worked with C-level executives in addressing pressing business issues during which he received numerous praises and testimonies. During his working with IBM SPSS, Mr. Ng Jinsheng also completed his Masters of Science in Knowledge Management [M.Sc(KM)] from the Nanyang Technological University (NTU) and graduated one of the top in his cohort with a Dean's List award in academic excellence. He later joined SAS Institute as an Education Specialist in the Training department, and thereafter as a Senior Associate in professional Consulting services.

An academic paper he has co-authored was nominated for the Best Paper Award in the 20th International Conference on Computers in Education (2012). He is currently a founding member of AnaVantage Management Consultancy LLP, and lectures and trains at Tertiary Institutions in Singapore in the area of business statistics, data mining and analytics, and develops analytics courses for undergraduate programmes in Singapore. He is also an IBM Business Analytics Certified Specialist in IBM SPSS Modeler (Professional) and IBM SPSS Statistics, as well as SAS Certified Predictive Modeler using SAS Enterprise Miner and SAS Certified Business Analyst using SAS 9: Regression and Modeling.

Professionally as a Trainer, Jinsheng possessed an Advanced Certificate in Training and Assessment (ACTA) conferred by the Workforce Development Agency of Singapore (WDA) and a proud recipient of the prestigious "Excellence in Teaching" Award (EIT) conferred by the Singapore Polytechnic (SP) during the Annual Excellence in Teaching and Training Convention 2015. He is also conferred the title of an *Associate Adult Educator* by the Institute of Adult Learning (IAL) in 2016, an Adult Educators' Professionalisation recognition which awards pedagogical and professional excellence.