Amplify your Data
Career with Analytics
a next gen approach

multisoft

Business Analytics Live Online Webinar with Multisoft Virtual Academy!!!

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Introduction

- Mr. Modi 's campaign team used Business Analytics to prepare another successful campaign . Credit card companies across the world are using Business Analytics to find the most reliable (Credit - worthiness) customer to lend to whereas banks & insurance companies are using it to find out the possibility of cross-sell or up sell.

- Business Analytics and its related terms such as Business Intelligence, Big Data, Data Mining, etc. has become a powerful tool for companies. According to the Harvard Review, "Data Scientist is the most desired job of 21st Century

Some Facts- WHY SAS ?

- 91 of the top 100 companies on the 2015 Fortune Global 500® are SAS customers.

- SAS Software is installed at more than 80,000 business, government and university sites.

- SAS has customers in 146 countries.

- Worldwide revenue is US$3.16 billion, out of which 25% is utilized in R&D investment.

What is Business Analytics

- Business Analytics is the process of converting data into insights. It is "the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions." With the increase in the availability of data, Analytics has now become a major differentiator in both the top line and the bottom line of any organization. It is hence not surprising that research has shown that data-driven companies perform 5%-6% better per annum.

- One of the primary users of Business Analytics is the Financial Sector. Models that predict credit quality, fraudulent credit card transactions and cross-sell / up-sell possibility are very common in banks, insurance companies, credit rating organizations, etc.

Examples of Business Analytics

- **Credit ratings/targeted marketing**:

  - Given a database of 100,000 names, which persons are the least likely to default on their credit cards?

  - Identify likely responders to sales promotions

- **Fraud detection**

  - Which types of transactions are likely to be fraudulent, given the demographics and transactional history of a particular customer?

- **Customer relationship management**:

  - Which of my customers are likely to be the most loyal, and which are most likely to leave for a competitor?

Major Areas employing Business Analytics Models

Risk
- Risk based pricing, Fraud Detection and Prediction, Recovery Management, Loss Forecasting, Risk Profiling, Portfolio Stress Testing

Marketing
- Segmentation, Marketing Mix Optimization, Competitor Analysis, Channel Analysis, Sales Performance Analysis, Campaign Analysis, Sales Pipeline Reporting

Supply Chain
- Supply and Demand Analysis, Strategic Sourcing, Quality Control, Inventory Analysis, Order Fulfillment Analysis

Customer Analytics
- Loyalty Analytics, Customer Life Time Value, Propensity Analytics, Churn Analytics, Customer Segmentation, Cross- Sell or Upsell Models

Web Analytics
- Click Analytics, Customer Lifecycle Analytics, Social Media Analytics, Sentiment Analytics, Online Traffic Analytics, Conversion Analytics

Human Resource
- Recruitment Analytics, Compensation Analytics, Talent Analytics, Training Analytics, Retention Analytics, Workforce Analytics
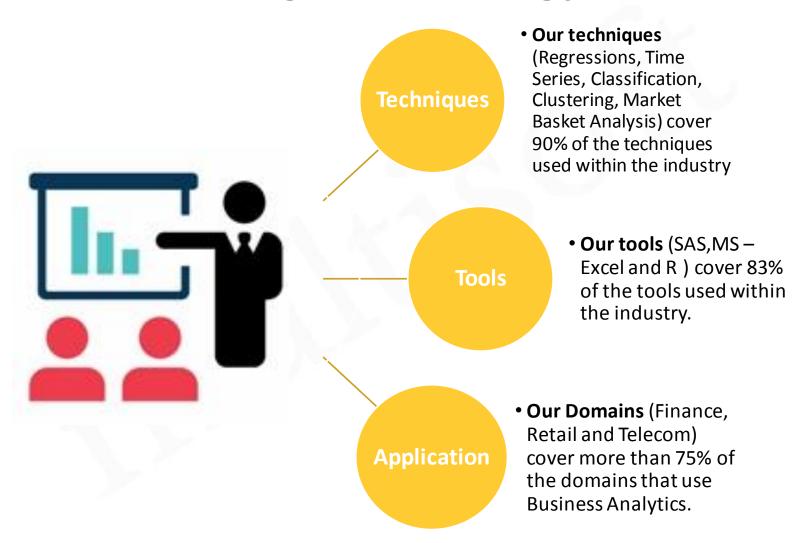
Career Path of a Business Analyst

Timeline	Profile	Median Salary
Entry	Business Analyst	INR 5,00,000
Mid-Management	Data Scientist	INR 14,00,000
Leadership	Senior / Lead Data Scientist	INR 25,00,000

Major Organizations employing Business Analytics Professionals

McKinsey and Company	Citibank	Walmart
Boston Consulting Group	ICICI Bank	Amazon
Morgan Stanley	LIC	IBM
Microsoft	Airtel	Vodafone

Training Methodology

Techniques

- **Our techniques** (Regressions, Time Series, Classification, Clustering, Market Basket Analysis) cover 90% of the techniques used within the industry

Tools

- **Our tools** (SAS,MS – Excel and R) cover 83% of the tools used within the industry.

Application

- **Our Domains** (Finance, Retail and Telecom) cover more than 75% of the domains that use Business Analytics.

Syllabus At a Glance

Subjects	Subject Components
Statistical Techniques	Different types of data, Frequency Distributions, Measures of central tendency and dispersion, Skewness and Kurtosis, **Basic Probability**, Conditional Probability, Normal Distribution, Central Limit Theorem, Sampling Methods, P-value, Types of errors, Power of the test, Point and interval estimation, **Hypothesis Testing** .
Regression	**Simple and Multiple Linear Regression** - Covariance and Correlation, R^2 and Adjusted R^2, ANOVA, Interpretation of coefficients, Dummy Variables, Residual Analysis, Outliers, Regression model building, Heteroscedasticity, Serial correlation, Multicollinearity **Logistic Regression**: Assumptions, Logistic Function, Chi-Square, Classification Table, Interpreting Coefficients, Dependent Variable Prediction, Hosmer Lemeshow test, Kolmogorov Smirnov statistic and chart.
Forecasting (Time Series)	Principles of forecasting, Time Series, Causal Models, Types of forecasting methods and their characteristics, Moving Average, Exponential Smoothing, Trend, Seasonality, Cyclicity, Holt Winter's forecasting method.
Data Mining Techniques	**Market Basket Analysis** - Basic concepts, frequent itemset mining methods, Apriori, FPGrowth, Evaluation Methods: Lift, Chi –Square , **Classification** - Basic concepts, Decision Tree Induction, Bayes Classification Methods, Model Evaluation & Selection, **Clustering**, - Partitioning Methods, Hierarchical Methods, Density-Based Methods, Grid-Based Methods, Evaluation of Clustering, Kmeans method.

How will this course help you?

- **At the completion of this course you will be able to:**

- Understand popular statistical tools such as Multiple Regression, Logistic Regression and Forecasting and where they can be applied.

- Comprehend widely – prevalent data mining techniques such as Classification, Clustering and Market Basket Analysis and where they can be applied.

- Be very comfortable with SAS and MS-Excel for Data Analytics Purposes.

- Work with, Understand and Explore real-life data to get a sense of which tools and techniques can be applied.

- Evaluate various models with a strong understanding of each model's strengths and weaknesses

- Q&A

Thank You

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