KOENIG SOLUTIONS · COURSE OUTLINE

Mastering Marketing Analytics Forecasting Models Using Excel & Strategy to Application

Learn to build forecasting and marketing analytics models in Excel, from regression and seasonality to marketing mix and customer analytics.

5 Days	11	56
40 HOURS	MODULES	TOPICS

7 hour course each day which will consist 3 breaks. 2 Coffee breaks & 1 Lunch Break

COURSE OVERVIEW

Understanding how future sales will change is one of the key information needed by manager to take data driven decisions. In this course, we will explore how one can use forecasting models to see patterns in time series data, make forecasts based on models, how to select the right metrics based on your business objective, how to identify and set benchmarks for your metrics, how to optimize your marketing through data and experimental testing, how to measure returns on marketing investment.

WHO THIS COURSE IS FOR

- **Entrepreneurs**
- **Marketing executives or managers**
- **Brand executives or managers**
- **Product owners**
- **PR and communications professionals**
- **Students planning to enter the marketing or data analytics field**
- **Anyone involved in marketing or communications**

LEARNING OBJECTIVES

- Build linear and multiple regression models for forecasting
- Prepare and clean data through outlier and missing value treatment
- Apply correlation analysis and variable transformation in Excel
- Incorporate special events such as holidays into forecasts
- Identify trend and seasonality using additive and multiplicative models
- Apply Winter's method for changing trend and seasonality
- Develop new product forecasts using S-curve and Bass diffusion
- Evaluate marketing mix models including diminishing returns and adstock

COURSE SYLLABUS

11 Modules, 56 Topics

DAY 1

01

Introduction & Basics of Forecasting

TOPICS

Ms-Excel Refresh · Basics Of Forecasting · Creating Linear model with trendlines

02

Getting Data Ready for Regression Model

In this section you will learn what actions you need to take a step by step to get the data and then prepare it for the analysis these steps are very important.

TOPICS

- Gathering Business Knowledge
- The Data and the Data Dictionary
- Univariate analysis and EDD
- Descriptive Data Analytics in Excel
- Outlier Treatment
- Identifying and Treating Outliers in Excel
- Missing Value Imputation
- Variable Transformation in Excel
- **Dummy variable creation:** Handling qualitative data
- Dummy Variable Creation in Excel
- Correlation Analysis
- Creating Correlation matrix in Excel

03

Forecasting Using Regression Model

This section starts with simple linear regression and then covers multiple linear regression. We have covered the basic theory behind each concept without getting too mathematical about it so that you understand where the concept is coming from and how it is important.

TOPICS

- The Problem Statement
- Basic Equations and Ordinary Least Squares (OLS) method
- Assessing accuracy of predicted coefficients
- **Assessing Model Accuracy:** RSE and R squared
- Creating Simple Linear Regression model
- Multiple Linear Regression
- The F - statistic
- Interpreting results of Categorical variables
- Creating Multiple Linear Regression model

04

Handling Special Events Like Holiday Sales

In this section we will learn how to incorporate effects of Day of Week Effect, Month Effect or any special event such Holidays, pay day etc.

TOPICS

Forecasting in presence of special events · **Excel:** Running Linear Regression using Solver · **Excel:** Including the impact of Special Events

DAY 2

05

Identifying Seasonality & Trend for Forecasting

In this section we will learn about trends and seasonality and how to use the Solver to develop an additive or multiplicative model to estimate trends and seasonality. We will also learn how to use moving averages to eliminate seasonality to easily see trends in sales.

TOPICS

- **Excel:** Additive model to identify Trend & Seasonality
- **Excel:** Multiplicative model to identify Trend & Seasonality
- Moving Average Method
- **Excel:** Moving Average Method

06

Handling Changing Trend & Seasonality over Time

In this section we will learn about Winter's Method that changes trend and seasonal index estimates during each period has a better chance of keeping up with changes than other methods.

TOPICS

- Winter's Method to accommodate changing Trend & Seasonality
- **Excel:** Winter's method

07

Forecasting Models for New Products

In this section we will learn techniques to forecast new product sales. It is difficult to forecast when we have little or no historical data. The S curve can be used when we have little data and the famous bass diffusion model can be used to predict product sales even before the product is launched in the market.

TOPICS

S-curve for New products · **Excel:** Using Logistic curve to model S-curve · **Excel:** Using Gompertz curve to model S-curve · Bass Diffusion Model for New Products · **Excel:** Implementing Bass Diffusion Model

DAY 3

08

Marketing Analytics Strategy (Marketing Mix Modelling)

TOPICS

- Learn what Marketing Mix Modeling (MMM) are
- How to explore Marketing Data
- How to deploy a Learning Algorithm on Excel
- **Diminishing Return with Excel:** How much can I spend before CPA increases?
- **Adstock with Excel:** What's the lagged effect of your ads?

DAY 4

09

Types of Measurement (Digital Analytics)

TOPICS

- Basics of analytics
- Descriptive Analytics, Diagnostic Analytics, Predictive Analytics
- Data analytics life cycle & data preparation
- Data visualization
- Data analytics & data visualization tools
- Case study
- Project

DAY 5

10

Customer Analytics

TOPICS

- Learn the most important marketing metrics and how to apply them to your data
- Analyze a company's PPC marketing campaign using key metrics
- Know how to ask the right questions from your data
- Build a marketing initiative forecast model from the ground up
- Build a dynamic dashboard to summarize your analysis

11

Course Wrap Up

TOPICS

Course Recap & Key Takeaways

NOTES

- It will be a 7 Hour course each day which will consist 3 breaks. 2 Coffee breaks & 1 Lunch Break.

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

Visit koenig-solutions.com | info@koenig-solutions.com