Insurance Claims Analysis Using Power BI Course

11 – 15 January 2027
London (UK)



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Insurance claims analysis using Power BI is the practice of turning claim records, from registration to settlement, into interactive reports that show how long claims take, what they cost and where fraud indicators appear. This 1-week course is for claims supervisors, analysts and reporting staff, and delegates finish with an integrated claims dashboard covering lifecycle, cost, fraud and forecast pages.

Introduction

The course rests on three ideas. The claims lifecycle is the sequence of stages a claim passes through, from registration to review, assessment, settlement and closure. The loss ratio is incurred claims divided by earned premium, the usual measure of whether claims costs are in proportion to income. Power BI, with its Power Query data preparation and DAX calculation language, is the reporting platform used throughout. The level is practitioner: delegates already know claims work and spreadsheets, and the course is taught through hands-on dashboard builds on claims datasets from motor, health and property lines.

Course Objectives

- Define the claims lifecycle stages and the data each stage produces in a claims system
- Distinguish claim frequency from claim severity and select the right measure for a cost question
- Apply Power Query to combine and clean claims data from policy, payment and provider sources
- Interpret loss ratios, settlement times and delay rates to locate where claims cost and time accumulate
- Compare rule-based fraud indicators with exception analysis and justify which claims to refer for review
- Select between operational and executive dashboard layouts for claims teams and senior management

Target Audience

- Claims supervisors and team leaders who must decide which delayed or high-value claims need escalation
- Claims and actuarial analysts producing regular reports who must judge which cost drivers explain a rising loss ratio
- Fraud and special investigation staff who must decide which exception patterns justify a referral
- BI and reporting staff supporting claims departments who must choose how claims data is modelled and refreshed
- Claims operations and service provider managers who must judge whether assessors and repairers meet agreed turnaround



Course Outline

Day 1: Claims Data Sources, Lifecycle Terms and Data Preparation

- Insurance Claims Analytics: Using Claims Data to Monitor Cost, Speed and Risk
- Claims Lifecycle Stages: Registration, Review, Assessment, Settlement and Closure Defined
- Claims Data Sources: Policy, Customer, Settlement, Payment and Service Provider Records
- Power Query Preparation: Cleaning Duplicates, Missing Values and Operational Entry Errors
- Star Schema vs Flat Table: Structuring Multi-Source Claims Data for Reporting

Day 2: Lifecycle Tracking and Claims KPIs

- Open vs Closed Claims Reporting: Tracking Status, Delays and Under-Review Cases
- Cycle Time Measures: Processing Time, Average Settlement Time and Delay Rate
- Claims KPI Design: Claim Count, Closure Rate, Average Cost and Delayed Ratio
- Team and Service Provider Monitoring: Indicators for Claims Handlers, Assessors and Repairers
- KPI Monitoring Dashboard Build: Visualising Lifecycle Measures for Claims Supervisors

Day 3: Claims Cost, Loss Ratios and Fraud Indicators

- Claim Frequency vs Claim Severity: How Often Claims Occur Compared With Their Size
- Claims Cost Breakdown: Analysing Cost by Type, Product, Location, Channel and Status
- Loss Ratio Analysis: Relating Incurred Claims to Earned Premium and Cost Drivers
- Fraud Indicator Detection: Repeated Claims, Abnormal Values and Exception Analysis Patterns
- Cost and Fraud Dashboard: Highlighting High-Value, High-Risk and Suspicious Claims Together

Day 4: Policyholder Behaviour, Risk Indicators and Claims Forecasting

- Policyholder Claims Behaviour: Linking Customer Segment, Policy Type and Coverage Period
- Service Channel Comparison: Claim Patterns Across Agent, Online and Branch Routes
- Trend vs Seasonality: Long-Term Claims Movement Compared With Recurring Pressure Periods
- Claims Forecasting in Power BI: Projecting Volumes, Costs and Settlements Ahead
- Claims Exposure Risk Indicators: Flagging Portfolios and Segments With Higher Claims

Day 5: Case Study Practice: Building the Claims Operations and Executive Report

- Operational vs Executive Claims Dashboards: Daily Stage Monitoring Compared With Summary Reporting
- Processing Performance Review: Applying KPIs to Speed, Accuracy, Compliance and Service Cost
- Interactive Visualisation: Drill-Through and Filters for Claims Teams and Senior Management
- Dashboard Quality Check: Data Accuracy, Clarity, Usability and Decision Value Reviewed
- Claims Case Study Report: Completing the Integrated Lifecycle, Cost and Fraud Dashboard



Skills You Will Gain

- Claims Data Modelling
- Power Query Data Cleaning
- Claims Lifecycle Reporting
- Loss Ratio Analysis
- Fraud Indicator Design
- Claims Forecasting
- Executive Claims Reporting

Why Attend This Course

- From exporting claim lists to spreadsheets each week to a refreshed Power BI model fed by several claims sources
- From counting open claims to seeing where in the lifecycle delays build up and which providers cause them
- From reviewing suspicious claims one by one to dashboards that surface repeated, abnormal and exceptional cases
- From separate cost and status reports to an integrated claims dashboard with lifecycle, cost, fraud and forecast pages

Conclusion

Claims analysis in Power BI is, in short, the discipline of reading a claims portfolio as a flow of stages, costs and risks rather than a list of files. The course makes three distinctions clear: frequency versus severity, operational versus executive reporting, and trend versus seasonal movement. It suits claims, fraud and reporting staff who want depth on claims alone; a broader insurance analytics course spanning underwriting, policy and finance data is the better fit for those who need every part of the business.

Course FAQs

What is insurance claims analysis using Power BI?

It is the use of Power BI to model claims data and report on lifecycle stages, settlement times, costs, loss ratios, fraud indicators and forecasts, so claims teams and managers monitor performance through interactive dashboards instead of static lists.

What is the difference between claim frequency and claim severity in insurance claims analysis?

Claim frequency is how many claims occur relative to policies or exposure; claim severity is the average cost per claim. A rising cost total can come from either, and separating them shows whether to examine risk selection or settlement amounts.



Which method does the insurance claims analysis using Power BI course follow?

It follows a lifecycle-based method: data is prepared in Power Query, measures are written in DAX, and every report is organised by claims stage, from registration through assessment to settlement and closure, before cost, fraud and forecast layers are added.

Is insurance claims analysis using Power BI right for a claims supervisor?

Yes. Claims supervisors use the lifecycle and KPI dashboards to see which claims are delayed, which teams or providers are slow, and which high-value cases need escalation, working from data rather than manual case checks.

What do delegates build on the insurance claims analysis using Power BI course?

Delegates build an integrated claims dashboard on a case-study dataset, with pages for lifecycle status, processing KPIs, cost and loss ratios, fraud indicators, policyholder risk, forecasts and an executive summary.

