

Certified Quantitative Researcher (CQtR)

Duration: 5 Days (40 Hours)

Mode: Classroom / Virtual / Blended (eLearning-enabled)

Introduction

In a data-driven business environment, quantitative research is essential for objective measurement, statistical validation, and evidence-based decision-making. The **Certified Quantitative Researcher (CQtR)** programme equips professionals with the theoretical knowledge, statistical techniques, and applied research skills required to design, analyse, and interpret quantitative studies with accuracy and confidence. This intensive five-day programme integrates statistical theory with real-world application to support strategic, operational, and policy decisions.

Objective

This programme aims to develop competent quantitative research practitioners capable of designing rigorous research studies, applying appropriate statistical methods, and translating numerical findings into actionable organisational insights.

Learning Outcomes

After completing this programme, the candidate should be able to:

1. Explain core principles, assumptions, and philosophies of quantitative research
2. Design statistically sound quantitative research frameworks
3. Develop hypotheses and measurable research variables
4. Apply appropriate sampling techniques and sample size calculations
5. Use descriptive and inferential statistical methods accurately
6. Analyse quantitative data using statistical tools and software
7. Interpret statistical outputs for business and policy decision-making
8. Present quantitative findings clearly and professionally
9. Apply ethical standards and quality controls in quantitative research

Who Should Attend

This programme is designed for business analysts, data analysts, market research professionals, strategy and performance managers, finance and risk professionals, consultants, policy analysts, monitoring and evaluation specialists, and postgraduate researchers seeking applied quantitative research expertise.

Programme Structure – 5-Day Outline

Day 1 – Foundations of Quantitative Research

Role of quantitative research in business and organisational contexts
Research paradigms and positivist approaches
Quantitative vs qualitative research and mixed-method designs
Research problem formulation and objective setting
Variable identification and measurement scales
Reliability, validity, and research quality
Practical activity: Defining variables and research objectives

Day 2 – Research Design, Sampling, and Data Collection

Experimental, quasi-experimental, and non-experimental designs
Survey and questionnaire design principles
Sampling methods including probability and non-probability sampling
Sample size determination and power considerations
Data collection methods and data quality assurance
Ethical considerations and respondent protection
Practical activity: Designing a survey instrument

Day 3 – Descriptive Statistics and Data Preparation

Data coding, cleaning, and preparation
Descriptive statistics including measures of central tendency and dispersion
Data visualisation and exploratory data analysis
Handling missing data and outliers
Introduction to statistical software concepts
Practical activity: Descriptive data analysis exercise

Day 4 – Inferential Statistics and Hypothesis Testing

Probability concepts and distributions
Hypothesis testing framework
Parametric and non-parametric tests
Correlation and regression analysis
Analysis of variance and model interpretation
Common statistical errors and misinterpretation
Practical activity: Hypothesis testing and regression analysis

Day 5 – Interpretation, Reporting, and Certification Assessment

Interpreting statistical results for decision-making
Linking quantitative findings to business strategy
Writing quantitative research and analytical reports

Presenting data to senior leadership and stakeholders

Data ethics, governance, and compliance

Final assessment and certification evaluation

Certification Awarded

Participants who successfully complete the programme and assessment requirements will be awarded the **Certified Quantitative Researcher (CQR)** credential.