Data-Driven Decision Making

In today's fast-paced business environment, data is the key to making informed decisions and gaining a competitive edge. Data-Driven Decision Making (DDDM) enables you to identify trends, understand patterns, and respond accurately and strategically to changes in the business landscape.
Instead of relying on intuition or rough estimations, advanced data analysis allows you to transform raw information into actionable insights, develop fact-based strategies, and enhance business performance. Using proven tools and methodologies, you will learn how to extract real value from data, make smarter decisions, and drive your organization forward in a data-driven world.

You must know!

Duration
40 Hours academic hours

Target Audience
This course is perfect for managers who want to acquire the best tools and methods to base their decisions on solid data. It is an excellent choice for procurement managers, marketing managers, sales managers, HR managers, CEOs, and business leaders looking to optimize their decision-making processes.
Join us on an exciting journey to smarter management and data-driven decision-making!

Our lecturers
 INT College has a faculty of instructors and training experts, leading in their fields, with extensive practical experience in applying and teaching the subjects in the hi-tech industry in Israel and worldwide.

Eligibility for INT College's Certificate
 An INT College certificate will be awarded to graduates who meet the course's regulations, submit all exercises and assignments, and attend at least 85% of the lessons.

Main Topics

1. Foundations of Decision-Making

- **Introduction**
    - Why decision-making is critical in service-based industries working with clients.
    - The difference between rational and intuitive decision-making models.
    - Real-world implications of poor decision-making.

- **Decision-Making Models:**
    - Rational Model
    - Intuitive Model
    - SWOT Analysis, 10-10-10 Model, Cynefin Framework (for complex decision environments), OODA Loop (Observe, Orient, Decide, Act).
    - Case Study: Public Infrastructure Planning & NASA's Challenger Disaster (Rational vs. Intuitive Decision-making).

- **Understanding Biases in Decision-Making**
    - Cognitive biases (confirmation bias, anchoring bias, availability heuristic, etc.).
    - Video: "The Psychology of Human Misjudgment" by Charlie Munger.

- **Exercise:**
    - Bias recognition activity (participants analyze real-world decisions with biases).
    - Group exercise: Applying the 10-10-10 model to a given scenario.

2 Data-Driven Organizational Success

- **Data-Driven Decision-Making Process (Build, Measure, Learn):**
    - Understanding hypothesis-driven decision-making in policy implementation.
    - KPI/OKR-driven decision-making in organizations.
    - SMART Model Value Framework.

- ○ "Aha Moment": The point where stakeholders recognize the impact of a service, illustrated through real-world examples and industry insights.
  - ○ How Netflix Uses Data to Drive Decisions. recommendations, and drive strategic decisions. Consider how similar data-driven methods can be applied to government decision-making.
  - ○ Real-world case study: Data-Driven Policing & Google's OKR success story.
- **Exercise:**
  - ○ Defining OKRs and KPIs for their workplace challenges.
  - ○ Breakout sessions: Building data-driven strategies for enhancing service outcomes.

3.Data Analysis and Hypothesis Testing

- **Introduction to Data Analysis:**
  - ○ Data Analysis Processes (Requirement collection, wants vs. needs).
  - ○ Data Cleansing & Ensuring Data Integrity
  - ○ Why clean data is crucial for transparent and accurate policy decisions.
  - ○ Common data errors in government datasets and how to prevent them.
  - ○ Mapping Data Points to Client Goals.

- **Analyzing Funnels & Making Hypotheses:**
  - ○ Understanding behaviors through data funnels.
  - ○ Asking "Why?" five times (The Five Whys technique in government problem-solving).
  - ○ A/B Testing: What, Why, and How in Engagement Strategies.
- **Critical Thinking**
  - ○ Identifying correlations vs. causation.
  - ○ Business Analysis (Retention, Growth, Service Adoption).
- **Exercise:**
  - ○ Implementing "Why?" five times on a municipal project.
  - ○ Conducting an A/B Test.
  - ○

4 . Data Storytelling & Visualization

- **Data Storytelling:**
  - How to turn data into compelling narratives.
  - The psychology behind storytelling with data for policymakers.
- **Visualization Best Practices:**
  - Choosing the right visualization
  - Tools Review: Tableau, Power BI, Google Data Studio.

- "How (Not) to Lie with Statistics" - Understanding data manipulation
- **Exercise:**
  - Creating a compelling data-driven report for a performance review.
  - Building dashboards and visual presentations
  - Peer review: Refining the effectiveness of storytelling techniques.

5.AI & Automation in Decision-Making

- **Supporting Systems for Decision-Making:**
  - Data warehouses, Business Intelligence systems, and automation.
  - **Big Data** and **the Five Vs:** Volume, Velocity, Variety, Veracity, and Value in public sector data form the foundation for AI-driven decision-making.
- **AI in Decision-Making:**
  - How AI enhances decision-making processes
  - There are examples of AI-driven decision-making in real-world applications, such as resource allocation, fraud detection, and predictive analytics for urban planning.
  - Ethical considerations of AI in governance.
- **AI-Powered Decision-Making Exercise:**
  - Hands-on exploration of AI tools used in government decision-making.
  - Case study: How AI optimizes public service delivery and resource allocation.

- **Final project**: A culmination of all key learnings from the workshop. Participants will apply data-driven decision-making principles, AI integration, and visualization techniques to analyze a real-world government dataset, derive insights, and propose actionable policy recommendations.

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