

### INDIAN INSTITUTE OF TECHNOLOGY

## Department of Management Studies

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Roll Number	MS17D008
Guide	Dr. T.J.Kamalanabhan
Program	PhD
Specialization	HR & OB
Research Topic	Role of Emotional Intelligence in Job Connected behaviour
Courses selected for comprehensive examination	<ol> <li>Data Analysis in Research</li> <li>Research Methodology</li> <li>Individual Dynamics in         Organizations</li> <li>Leadership Development</li> <li>Talent Acquisition and         Management</li> </ol>

# **Data Analysis in Research** (MS 6031)

- 1. Introduction to Statistics
  - **\*** What is statistics?
  - ❖ Seven pillars of statistical wisdom
    - i. Aggregation,
    - ii. Information,
    - iii. Likelihood,
    - iv. Intercomparision,
    - v. Regression,

- vi. Design and
- vii. Residual
- 2. Discussion on Seven Pillars of Statistical Wisdom
- 3. Review of Probability and Data Analysis
- 4. Some common Probability distributions
- 5. Sampling
  - **\Leftrightarrow** Estimating  $\mu$  and  $\sigma$
  - Unbiasedness, efficiency and consistency of estimators
- 6. Sampling Distribution of the mean
- 7. Theory of Bayes Theorem
- 8. Confidence Intervals
  - \* T-distribution for confidence interval estimation
- 9. Hypothesis testing
  - ❖ The Theory of tests
  - Theory of Neyman-Pearson Lemma
- 10. The Theory of Maximum Likelihood estimators
- 11. Central Limit Theorem
- 12. Readings on-
  - ❖ Difference between classical and Bayesian statistics
  - **&** Bayesian Search Theory
  - ❖ Trial of the Pyx and De Moivre's square root rule
  - Transitive relation and correlation
  - Cauchy Distribution
  - **❖** Availability bias
  - ❖ Laplace prior and comparing it to rationalism
  - Bruno Definetti's philosophical gambling strategy
  - ❖ Benford's law
  - ❖ Why are errors Gaussian?
  - Chebyshev rule
  - Problem of moments
  - Moral Hazard
  - Dutch book bets and Ellsberg Paradox
  - ❖ Type 1, Type 2, Type 3 and Type 0 error
  - ❖ Invention of the average
  - Pascal's wager
  - Shannon entropy

#### Research Methodology (MS 7080)

- 1. What is Research
  - ❖ What is knowledge?

- \* Theory, knowledge and Research.
- Descriptive and causal research
- Ontology, epistemology, axiology and methodology
- 2. The Scientific approach
  - Philosophy and the roots of science
  - **\Delta** What is science?
  - Scientific knowledge and scientific method
- 3. The interpretive approach
  - ❖ The emergence of alternative methods of knowing
  - Interpretive research traditions
  - Implications of interpretive research
- 4. Theory and Hypotheses
  - ❖ What is a Theory?
  - Laws and theories
  - ❖ Where do the theories come from?
  - ❖ Developing theory models, hypotheses and propositions
- 5. Research Design
  - Purposes of Research Design
  - Level of Analysis and theoretical variation
  - ❖ The Experimental approach
  - Cross-sectional designs
  - Longitudinal designs
  - Case study designs and action research
- 6. Research for Theory building
  - ❖ Building theories from Case Study Research
  - ❖ The Cycles of Theory Building in Management
- 7. Grounded Theory
- 8. Positivism in Qualitative Research
- 9. Measurement and Validation

### <u>Individual Dynamics in organizations</u> (MS 5121)

Topic	Readings
Understanding the Why and What Contemporary issues in OB	MBTI Survey

What is my personality type?	Reflected Best Self Exercise
Working harmoniously with others	How to play to your strengths
Biases and Perceptual distortions	A second chance to making the right
Managing Public Image	impressions
How do we perceive others and how do	
others perceive us?	
Building Authenticity	Congruence
Playing to your strengths	Managing Oneself
Discovering Creativity	How to build a culture of Originality
Decision making and biases	Hidden traps in decision making
The challenge of Ethical dilemmas	How (un)ethical are you
Developing the growth mindset	Learning to learn
Learning, Unlearning, Relearning	
Becoming emotionally competent	What makes a leader
Intellection of the time Time I'm and the time	English and the first in a second of the state of
Intrinsic motivation, Finding meaning in work	Employee motivation a powerful tool
Becoming a Self-Actualizing individual	Maslow's Self-Actualizing individuals
Inner Work: In pursuit of perfection,	
excellence, flow.	

## **Leadership Development**

- ❖ Nature of Leadership
- Effective leadership behavior
- Individual, group and team level leadership
- Leading change and innovation
- Participative leadership and empowerment
- Leadership traits and skills

- Contingency theories and adaptive leadership
- Power and influence tactics
- Dyadic relations and followers
- Leadership in teams and decision groups
- Strategic leadership in organizations
- Charismatic and transformational leadership
- Ethical, servant, spiritual and authentic leadership
- Cross-cultural leadership
- Developing leadership skills

#### **Talent Acquisition and Management (MS 5410)**

- 1. Staffing
- 2. Legal Aspects of Staffing
  - ❖ Fair Employment Laws –EEO Best Practices
  - ❖ Need for laws and regulations, sources of laws and regulations
  - \* Recruiting from diverse workforce
- 3. Strategy and Planning
  - HR Planning
  - ❖ Forecasting HR requirements and availabilities
  - Preparing Action plans
  - \* External and Internal Environmental scanning
- 4. Job Analysis
  - ❖ Job description, job specification
  - Competency based job analysis
  - **❖** Job rewards
  - \* Types of rewards, employee value proposition
  - Collecting job rewards information
- 5. Measurement
  - Scales of measurement
  - Reliability and Validity of Measures
- 6. External Recruitment
  - Organizational issues, administrative issues, recruiters
  - Strategy development
  - ❖ Searching communication message
  - communication medium Campus recruitment, Job fares, employee referrals,
     Role of media in recruitment
  - applicant reactions
- 7. Internal Recruitment

- ❖ Organizational issues, administrative issues, recruiters
- Strategy development
- ❖ Searching communication message
- communication medium Campus recruitment, Job fares, employee referrals,
   Role of media in recruitment
- applicant reactions
- Glass Ceiling
- 8. Selection Tests
- 9. Glass ceiling
- 10. Interviews
  - ❖ Nature and types of interview
  - Structured vs Unstructured Interviews
  - ❖ Interview contents nature of questions, Interviewers attitude and behaviour
- 11. Employment Contracts
  - ❖ Form of the contract, disclaimers, contingencies
  - Unfulfilled promises
  - ❖ Job offer and its content
  - Formulation and presentation of job offer-low ball, competitive and best shot offers
  - Orientation and socialization
  - ❖ Negligent hiring and employment-at-will
- 12. Evaluating Success of selection performance appraisal methods
  - Checklists
  - Rankings
  - Graphic rating scales