Semester 5

GLOBAL SUPPLY CHAIN MANAGEMENT

Paper Code: FYBBAGB 501

Credit-5

Module 1 Introduction To Supply Chain [10L]

Supply Chain definition -Objectives – Types – Various definitions – Drivers – Need for SCM – SCM as a profession – SCM decisions and skills – Strategy formulation in SCM – Value in Supply Chain – Tradeoffs – CRM Strategy relationship matrix Strategic Sourcing – Source evaluation – collaborative perspective – Buyer Supplier Relationship – Partner Selection – develop of Partnership – importance of inventory – imbalances – uncertainties – inventory costs – inventory turnover ratio

Electronically linking the supply chain – Supply chain performance measurement–Developing and implementing partnerships in the supply chain – Implementing supply chain management - Effect of Cost, Government, Competitors.

Module-2: Strategic Global Supply Chain Management: [10L]

Locating Global Activities - Important Definitions & Distinction- Integration of Global Supply Chain Functions, Strategic Benefits of Global Supply Chains - Example implementation of any of the eight key business processes - Supply chain /logistics distinctions - Integrating the supply chain - Outsourcing (3pls-client) relationships - The supply chain strategy and corporate strategy interface - Creating supply chain value - Supply Chain Agility - Supply Chain Information Systems - Supply chain metrics

Module-3: Logistics in Global Supply Chain [15L]

Transportation Selection – Trade off – modes of transportation – models for transportation and distribution – factors affecting network effectiveness – 3 PL advantages – Indian transport infrastructure – IT solutions – EDI, e-Commerce, e-Procurement – Bar Coding and RFID technology Critical business processes and information systems – DBMS – benefits of ERP –information system and bull whip effect – SCM software packages – modelling concepts – Vendor analysis model – Coordinated SCM – Simulation modellingReverse Vs forward supply chain – types of reverse flows – collaborative SCM's and CPFR – agile systems – sources of variability – characteristics – supplier interface – internal

processes

Module-4: Purchasing in Global Supply Chains: [20L]

- 1. Global Purchasing Strategy From International to Global Purchasing Types of Global Purchasing Strategy Outsourcing & Off-shoring -Global Customers & Channels Order Fulfilment & Delivery Global Supplier Selection- Global Supplier Networks
- 2. The Logistical Value Proposition The Work of Logistics Logist ical Op e r ating Arrangements Flexible Structure Supply Chain Synchronization, Transport Functionality, Principles and Participants Transportation Service Transportation Economics and Pricing Transport Administration Documentation International Logistics and Supply Chain Management: Meaning and objectives, importance in global economy, Characteristics of global supply chains,: Global Supply Chain Integration Supply Chain Security International Sourcing Role of Government in controlling international trade and its impact on Logistics and Supply Chain

Module-5: ERP and Supply Chain profitability[10L]

- 1. Supply chain automation and supply chain integration.
- 2. Quality management mass customization and globalization ethical Supply Chains e-business and SCM Balanced Score Card –Benchmarking, Performance measurement

Module-6: International Insurance [10L]

Cargo movements – water damage – Theft – Privacy – pilferage – Other risk – perils with air shipments – Risk Retention – Risk Transfer – Marine Cargo Insurance – Coverage A,B,C classes – Elements of air freight Policy – Commercial Credit Insurance – Size of Vessels, Tonnage, Types of vessels- Container, Combination ships – Non vessel operating carriers

- 1. Supply Chain Management by Sunil Chopra & Peter Meindl (PHI)
- 2. Logistical Management by Donald J. Bouersox David J. Closs (TATA MC GRAW HILL)
- 3. Essentials of Supply Chain Management by Dr. R.P.Mohanty & Dr. S.G.Deshmukh (Jaico Student Edition)
- 4. Desiging & Managing –The Supply Chain by David Simchi Levi Philip Kaminsky Edit Simchi –Levi(TATA MCGRAW-HILL)
- 5. International Logistics: Global Supply Chain Management by Long Douglas, (2003). Springer ed.

INTERNATIONAL FINANCIAL MANAGEMENT & ACCOUNTING

Paper Code: FYBBAGB 502

Credits-5

Module I: Meaning and Scope of Financial Management and International Financial Management: [20L] Profit vs wealth maximization; Financial functions –investment, financing, and dividend decisions; Overview of the

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Foreign Exchange Market, Foreign Exchange Rates – Direct & Cross rates (concept and simple numerical problems)
Basic understanding of Spot Exchange rate, bid-ask spread, forward exchange rate, swap rate.
International Parity Relationships: Concepts on:
☐ Interest rate parity
☐ Purchasing power parity
☐ International Fisher effect
Foreign Exchange Risk and Hedging: Concept of Transaction, Economic & Translation exposure. Concepts on
Forward Contracts, Foreign Currency Option & Money Market Operation. Financing International Operation:
Concepts on:
☐ Eurocurrency Loans
□ LIBOR
☐ Eurobonds and Foreign Bonds
□ Depository Receipts
Module II: Capital Budgeting:[15L]
Techniques used in Capital Budgeting - Payback period, net present value, Internal rate of return, Profitability Index.
Module III: Cost of Capital & Leverage [15L]
Significance of cost of capital; Calculating cost of debt; Preference shares, equity capital, and retained earnings;
Combined (weighted) cost of capital. Operating and Financial Leverage, Effects on Profit, Indifference Point Analysis,
EBIT-EPS Analysis
Module IV: Capital Structure Decision: [5L]
Designing optimum capital structure; Different theories. (NI, NOI &MM).
Module V: Concept of Dividend Factors [5L]
Determinants of dividend, Walter, Gordons, MM.
Module VI: Costing Concepts: [15L]
Basic Cost Accounting Concept- Cost Concept-Cost Unit- Technique of Costing- Method of Costing- Cost center-
Cost Unit- Cost Sheet preparation.
Marginal Costing, Break-even and Cost Volume Profit Analysis. Concept of limiting factor.

- 1. International Financial Management by Eun & Resnik: McGraw Hill
- 2. International Financial Management by Apte: McGraw Hill
- 3. Financial Management by I M Pandey: Vikas Publishing
- 4. Financial Management, Text Problems & Cases by Khan & Jain: Tata McGraw Hill
- 5. Financial Management by Prasanna Chandra: Tata McGraw Hill

Semester 6

PROJECT MANAGEMENT Paper Code: BBAGB601 Credits-5

Module 1: Project Selection [15 L]

Define Project, project lifecycle, project classification, define project management, benefits of project management, project management techniques, Projects Procurement Process, Project Management tools, functions, activities, Project Selection management - feasibility - types and checkpoints in the Project Management, Life Cycle; Financial Analysis, (NPV, ROI, IRR); Development Productivity Index (DPI); Screening Process

Module 2: Project Management Methodology. [15L]

Project appraisals, feasibility reporting, final project report including P&I appraisal as applicable. Technical and Financial Analysis.

Module 3: Project Planning and Scheduling, Network Analysis, CPM, PERT, Crashing and Resource Optimization; Project Work Breakdown and structure (functions, activities and tasks); Project cost estimation. [15L]

Module 4: Project Roles, Team Types and Team Building. Organization structure for effective project implementation [10 L]

Module 5: Project risk Management and Mitigation Strategies; Social cost-benefit analysis. Project Control. Project Management measuring, monitoring and tracking techniques; Resource allocation and scheduling and purchasing. [10L]

Module 6: Project (PMIS): Software applications and methods, poject management system, PMIS principal features [10L]

- 1. Sitangshu Khatua: Project Management and Appraisal: Oxford
- 2. Dr. Raj Kumar Yadvendra Gullybaba.com Panel: MS-52 Project Management, Gullybaba Publishing House Pvt. Ltd.
- 3. Horold Kerzner: Project Management: A System Approach to Planning, Scheduling and Controlling: Wiley.
- 4. Erik Larson and Clifford Gray: Project Management: The Managerial Process, McGraw Hill Education.
- 5. Project Management: Essential Managers, DK.
- 6. Kalpesh Ashar: Project Management Essentials You Always Wanted to Know, Vibrant Publishers.

INTERNATIONAL HUMAN RESOURCE MANAGEMENT

Paper Code: FYBBA GB 602

Credits: 5

Module 1: Introduction to International Human Resource Management [15 L]

Definition and Meaning of International Human Resource Management (IHRM), scope, objectives and principles of International Human Resource Management (IHRM), Difference between domestic and International Human Resource Management, Global Challenges in HRM in the 21st Century, International business approaches and IHRM

Module 2: Recruitment, Selection and Staffing in International Context [15 L]

International Managers – Parent Country Nationals, Third Country Nationals, Host Country Nationals, Head-hunters, Cross-national advertising, E-recruitment, advantages and disadvantages of different selection methods, selection criteria and techniques, use of selection tests, interviews for international selection, different approaches to multinational staffing decisions, approaches to multination staffing decisions, types of international assignments, successful expatriation, role of an expatriate, female expatriation, repatriation, re-entry and career issues.

Module 3: Training & Developing in International context [15 L]

Context of International training, Types of expatriate training, HCN training, Knowledge transfer in MNCs, cultural awareness training, impact of different learning styles on training, standardised vs tailor-made training, types of cross-cultural training, cultural assimilators.

Module 4: Performance Management and International Compensation [10 L]

Performance Management and MNE, Performance Management of International Assignees, third and host country employees, issues and challenges in international performance management, country specific performance management practices Forms of compensation, Key components of international compensation, Approaches to international compensation, Compensation practices across the countries, Emerging issues in compensation management.

Module 5: Industrial Relations in International Context [10 L]

Impact of globalisation to industrial relations, key issues in International Industrial Relations, International Practices in Industrial Relations, Shifts in IHRM and IR, International Labour Organisation (ILO), International Labour Standards, Global Unions, HR/IR issues in MNCs

Module 6: HRM practices in different Countries [10 L]

HRM practices in Japan, USA, UK, India and China and their culture, HRM and other employee related values and best practices. A comparison of India with other listed Countries, Areas of improvement in Indian systems and culture.

- 1. Peter J Dowling & D E. Welch: International Human Resource Management, Cengage Learning 4th Edition IE.
- 2. Monir H. Tayeb: International Humana Resource Management, Oxford University Press, IE
- 3. P. Subba Rao: Essentials of IHRM & IR, Himalaya Publishers
- 4. Beardwell I. & Holden L: HRM A Contemporary Perspective, London: Pitman, 1997.
- 5. Rober L. Mathis & John H Jackson: Human Resource Management, Thomson Western Publishers. 6. David A. Decenzo, Stephen P. Robbins: HRM, John Wiley & Sons, Canada Limited, 2010.

RISK MANAGEMENT IN GLOBAL BUSINESS

Paper Code: FYBBAGB 603

Credits: 4

Unit I: Introduction to Risk [10L]

Risk, Uncertainty, Peril, Hazard, Subjective risk, Acceptable risk versus Unacceptable risk, Classification of risk, Classification of Pure risk, The cost of risk, Degree of risk.

components of Country-specific risks in international business ((economic, financial, currency, geo-political, social, environmental, and cross-cultural risk)

UNIT II: Meaning and scope [10L]

Meaning, Scope & Objective of Risk Management, Personal risk management, Corporate risk management, Risk Management Process, The Administration of Risk Management Process- influencing factors, constrains, monitoring & review.

UNIT III Risk Identification- [10L]

Perception of risk, Operative cause/perils, Safety Audit. Risk Evaluation - Presentation of Data, Probability Concepts, Risk and Law of large number

UNIT IV Risk Control-[10L]

Risk avoidance, Risk reduction- Classifications, Evaluation of risk reduction measures. Risk Financing- Retention—Determination of retention levels, Captive Insurer, Self-Insurance, Risk retention group. Transfer—Non-insurance transfer, Insurance.

UNIT V RISK MANAGEMENT [20L]

Enterprise Risk Management: Meaning of ERM, Source of risk to an Enterprise, Pure risk, Speculative risk, Strategic risk, Operational risk, Market risk, Credit risk.

Market Risk Management: Importance, Exposure in financial markets, Methods to handle & control Market risk. Credit Risk Management: Need, Securitization for credit risk, Credit derivatives, Methods for credit risk management.

Project Risk Management: Meaning, Source & Classification of project risk, Phases of Project Risk Management, Cost & Effect of project risk operation, Reason, Scope, Objective of Project Risk Management.

Operational Risk Management: importance, Sources & Classification of Operational Risk, Measurement of Operational risk, Stages of Operational Risk Management. Strategic Risk Management, Strategic outlook to risk management, Strategic planning to manage risk, Managing risk in Merger & Acquisitions.

Suggested books

Principles of Risk Management & Insurance – George E. Rejda.

Risk Management & Insurance- Scott Harington . Risk Management & Insurance- C. Arthur Willams.

Enterprise Risk Management: ICFAI Publishers

Principles of Risk Management & Insurance – George E. Rejda.

Semester 7

INTERNATIONAL MARKETING Paper Code: FYBBAGB 701A

Credit-5

Module 1: Introduction to International Marketing [15L]

definition of International marketing, International marketing vs. Domestic Marketing, Principles of International Marketing, Process of internationalization, MNCs and TNCs .Opportunities and challenges in International Marketing, Dynamics of World Market: Identifying and satisfying global needs, Coordinating activities and recognizing constraints

Module 2: International market entry and Distribution Strategy [20L]

International market selection process and foreign manufacturing strategies with and without Direct Investment, International Entry Mode and Market Entry Strategies of Indian firms

International distribution strategy, Factors influencing the Channel decision, Channel Selection decision.

Module 3 : International Product Policy and Planning [15L]

Need for Product Planning, Product life cycle in International Marketing, International product Policy, Product adaptation Product Standardization, International product positioning, Planning the International Product Mix, Product and culture, Branding in International Market, International Branding Strategy, International Packaging, International Product Warranties and Services, International marketing Planning and control.

Module 4: International Pricing and Promotion Decisions [15L]

environmental influence on Pricing Decisions, Factors in global pricing, Alternative strategies, Forfeiting, Grey Market goods, Transfer pricing, Dumping, Counter trade

International promotional decisions, Global Advertising selecting an advertising agency.

Personal selling, Sales Promotion, Public Relations and Publicity & Sponsorship, Global Promotion Mix

Module 5: Procedure of Foreign Trade and Documentation [10L]

Process of importing and exporting, Documentation (only the purpose) – certificate of origin, bill of lading, mates receipt, letter of credit, line of credit

Suggested Books

- 1. International Marketing by Michael R. Czinkota & Ilkka A. Ronkainen (Cengage Learning)
- 2. International Marketing Management by Varshney (Sultan Chand & Sons)
- 3. International Marketing by Rakesh Mohan Joshi (Oxford University Press)
- 4. International Marketing (Including Export Management) by Francis Cherunilam (Himalaya Publishing House)
- 5. Global Marketing Strategy by Douglas & Craig (McGraw-Hill Education; International Ed edition)

INTERNATIONAL STRATEGIC MANAGEMENT

Paper Code: FYBBAGB 701B

Credit5

Module 1: Introduction to Strategic Management [10 L]

Definition of Strategy, define Strategic Management, Evolution of Strategic Management, Strategic Management process, Levels of strategies, benefits and risks of strategic management.

Module 2: Strategic Intent [15L]

Vision, Mission, Business definitions, Goals, Objectives and plans, formulation of strategy and strategic implementation

Module 3: Environmental Scanning [15L]

External and Internal analysis, PESTEL analysis, SWOT analysis, resources capabilities and core competencies, analysis of strategies and choice of strategy

Module 4: Strategic Formulation [15 L]

Business Level Strategies, Cost leadership, differentiation and focus. Corporate level strategies - Types of Corporate strategies.

Module 5: Strategic Actions [10L]

Mergers, Acquisitions, Diversification, Joint Ventures, De-Merger

Module 6: Strategic Implementation and Control [10L]

Evaluation of Strategic Alternatives, Strategic Change, Types of Strategic Alternatives like Portfolio Analysis and its techniques, SWOT Analysis, Profit Impact of Market Strategy (PIMS), Corporate Renewal, Internal and External Causes of Organizational failures.

- 1. Business policy and Strategic Management Concepts and applications: Vipin Gupta, Kamala Gollakota and R.Srinivasan- Revised 2nd Edition, (PHI New Delhi).
- 2. Strategic Management : Azhar Kazmi.(TMH)
- 3. Strategic Management : Subbarao (Himalaya Publication)
- 4. Strategic Planning and Management, P. K. Ghosh, (2006), (Sultan Chand & Sons, New Delhi

RESEARCH METHODOLOGY Paper Code: FYBBAGB 702

Credit-5

Module 1: Meaning, scope and significance of social research [10L]

Types of Research: (a) Pure and Applied, (b) Exploratory, Descriptive, (c) Experimental; Steps in Social Research & types Conceptualization and Formulation of Hypothesis.

Module 2: Research Process and Research Design [5L]

Research problem, problem formulation, design structure and research process steps; Literature Review: Concept, necessity, research gap, reference, and plagiarism

Module 3: Types of Research Design [5L]

Exploratory, Descriptive and Causal Research Design

Module 4: Data Collection: [10L]

Sources of Data – Primary and Secondary data; Method of Data Collection - (a) Survey, (b) Observation, (c) Questionnaire & Scheduled, (d) Interview, (e) Case Study

Module 5: Sampling Design: [5L]

Sampling process, types of sampling, probabilistic and non-probabilistic sampling, sampling techniques determination of sample size

Module 6: Measurement and Scaling: [5L]

Types of scale used, Introduction to nominal, ordinal and ratio scales and its applicability, Concepts and tests of validity and reliability

Module 7: Questionnaire and Form Design [5L]

Techniques used in designing the Questionnaire – Questionnaire design and structure – Scales used in Questionnaire

Module 8: Introduction to Hypothesis Testing [5L]

Definition, Concepts, Types of hypothesis, Test Statistics, Critical Value, Decision Rule, Procedure, Hypothesis testing for mean, proportion etc.

Module 8: Data Presentation and Data Analysis [15L]

Data Editing and Data Coding; Basic Tables and Graphs for data presentation; Central Tendency includes areas like MEAN | MEDIAN | MODE - including composite group; Dispersion: Includes Range | Mean Deviation | Quartile Deviation | Standard deviation and COV; Introduction to Bi-variate techniques (Theory only)

Module 9: Reporting and Report Presentation [7L]

Structure of Report – Content or report format – Basic presentation of text and style of reporting - Use of table /graph heading and sub heading – Style of referencing used.

Module 10: Data Ethics: Concept, business benefits, Principles [3L]

- 1. S N Murthy and U Bhojanna: Business Research Methods, Excel Books.
- 2. D.R. Cooper and P.S. Schindler: Business Research Methods, Tata McGraw -Hill
- 3. Kothari, C.R.: Research Methodology Methods and Techniques, New Age International Ltd.
- 4. U. Sekharan and R Bougie: Research Methods for Business: John Wiley and Sons
- 5. J. K. Das: Business Mathematics and Statistics: Academic Publishers
- 6. P Mishra: Business Research Methods, Oxford University Press.

STATISTICS LAB I

Paper Code: FYBBAGB 791

Credit-4

Course Objective: The course is designed to provide students with an understanding of the data and its relevance in business and develop an understanding of the quantitative techniques in statistics. Also to develop the ability to interpret the numerical information that forms the basis of decision-making in business.

Module 1

Data Collection and Data Pre-Processing, Data Pre-Processing Overview – Data Cleaning, Data Reduction using Excel or SPSS (5hours)

Module 2

Basic Data plots: Stem and Leaf Diagram, Skewness and Kurtosis. Some useful plots: Box Plots – Pivot Table – Heat Map using Excel or SPSS (10 hours)

Module 3

Construction of a Table and the different components of a table. Diagrammatic representation of data: Line diagrams, Bar diagrams, Pie charts and divided-bar diagrams using Excel or SPSS (10 hours)

Module 4

Measures of Central Tendency Mean, Median and Mode using Excel or SPSS (5hours)

Module 5

Measure of Dispersion: Including Range, Mean Deviation, Quartile Deviation, Standard deviation and COV using Excel or SPSS (5hours)

Module 6

Correlation and Scatter Diagram – Karl Pearson's Correlation Coefficient – Rank Correlation – Correlation Coefficient for Bivariate Frequency Distribution using Excel or SPSS (5 hours)

Module 7

Simple and Multiple Regression: Application of Least Square Method, Model Evaluation through Visualization: Residual Plot (5 hours)

Semester 8

ENTERPRISE RESOURCE PLANNING

Paper Code: FYBBAGB 801

Credit: 5

Module 1 Introduction to ERP [10L]

Evolution of ERP, concept of ERP, Reasons for the Growth of ERP; Scenario and Justification of ERP in India; Evaluation of ERP; Various Modules of ERP; Advantage of ERP.

Module 2 An Overview of Enterprise [10L]

An Overview of Enterprise; Integrated Management Information; Business Modeling; ERP for Small Business; ERP for Make to Order Companies; Business Process Mapping for ERP Module Design; Hardware Environment and its Selection for ERP Implementation.

Module 3 ERP and Related Technologies [15L]

ERP and Related Technologies; Business Process Reengineering (BPR); Management Information System (MIS); Executive Information System (EIS); Decision support System (DSS); Supply Chain Management (SCM).

Module 4 ERP Market [5L]

Introduction, SAP AG, Baan Company, Oracle Corporation, People Soft, JD Edwards World Solutions Co, System Software Associates, Inc. (SSA); QAD;

A Comparative Assessment and Selection of ERP Packages and Modules

Module 5 ERP Implementation Lifecycle [10L]

Issues in Implementing ERP Packages; Pre-evaluation Screening; Package Evaluation; Project Planning Phase; Gap Analysis; Reengineering; Configuration; Implementation; Team Training; Testing; Going Live; End-User Training; Post Implementation (Maintenance Mode).

Module 6 Selection of ERP Vendors [5L]

Vendors; Consultants and Users; In-House Implementation - Pros and Cons; Vendors; Consultants; End User

Module 7 Future Directions in ERP [10L]

New Markets; New Channels; Faster Implementation Methodologies

Module 8 Other Related Technologies of SCM [10L]

E-Procurement; E-Logistics; Internet Auctions; E-markets; Electronic Business Process Optimization; Business Objects in SCM; E commerce.

- 1.Manufacturing Resource Planning (MRP II) with Introduction to ERP; SCM; an CRM by Khalid Sheikh, Publisher: McGraw-Hill
- 2. The Impact of Enterprise Systems on Corporate Performance: A study of ERP, SCM, and CRM System Implementations [An article from: Journal of Operations Management] by K.B. Hendricks; V.R. Singhal; and J.K. Stratman, Publisher: Elsevier
- 3. ERP and Supply Chain Management by Christian N. Madu, Publisher: CHI
- 4. Implementing SAP ERP Sales & Distribution by Glynn C. Williams, Publisher McGraw-Hill

STATISTICS LAB II

Paper Code: FYBBAGB 891

Credit: 5

Module 1: Introduction to Data Presentation and Data Analysis (10 hours)

- (a) Data Editing and Data Coding
- (b) Basic Tables and Graphs for data presentation
- (c) Central Tendency includes areas like MEAN | MEDIAN | MODE including composite group
- (d) Dispersion: Includes Range | Mean Deviation | Quartile Deviation | Standard deviation and COV
- (e) Introduction to Bi-variate techniques (Theory only)

Module 2: Correlation and Simple Regression (5 hours)

Correlation and Scatter Diagram – Karl Pearson's Correlation Coefficient – Rank Correlation – Correlation Coefficient for Bivariate Frequency Distribution

Simple Regression: Application of Least Square Method, Model Evaluation through Visualization: Residual Plot

Module 3: Sampling and Hypothesis (5hours)

Sampling, Inferences about Two Populations using MS Excel & SPSS, Hypothesis testing involving two population variances using MS Excel & SPSS – Large Sample (Z test), Small Sample (T-Test)

Module 4: Chi Square Test and Anova (5 hours)

Chi-Square Testing Using Excel for Goodness of fit, equality of proportions and tests of independence, Experimental Design and ANOVA

Module 5: What If Analysis, Goal Seek Analysis (5 hours)

Use of What if analysis and goal seek function using Excel – Use of Scenario Simulation

Module 6: Multiple Regression Analysis (10 hours)

Multiple Regression and assumption testing using MS Excel & SPSS

Module 7: Other Multi variate Analysis techniques (10 hours)

Factor Analysis - Cluster Analysis - Discriminant analysis - conjoint analysis and Forecasting methods

Module 8: Logistic Regression (10 hours)

Discrete choice models, Logistic Regression, Logistic Model Interpretation, Logistic Model Diagnostics, Logistic Model Deployment

- 1. Scheffe H. (1959): The Analysis of Variance, John Wiley
- 2. A Linear Model Approach to Regression Analysis and its Applications, Suddhendu Biswas, New Central book agency
- 3. NORUŠIS, M. J. SPSS introductory statistics: student guide2.
- 4. Data Science & Analytics (with Python, R and SPSS Programming), By V.K. Jain
- 5. Bhattacharya GK & Johnson R. A. (1977): Concepts & Methods of Statistics, John Wiley
- 6. Stuart G & Ord J.K. (1991): Advanced Theory of Statistics (Vol 2), Charles Griffin 7.
- 7. Marketing Research: D.R. Cooper and P.S. Schindler; TMH

MARKETING ANALYTICS Paper Code: FYBBAGB 802A

Credit -5

Module 1: Introduction to Marketing Analytics: [10 L]

Introduction, Using excel to summarize data. What is analytics, what is marketing analytics, why marketing analytics using excel

Module 2: Forecasting: [10 L]

Simple Linear Regression, Multiple Linear Regression to forecast sales. What we can forecast, forecasting, planning and goals, forecasting data and methods, basic steps in forecasting, statistical forecasting perspective, linear model, forecasting with regression, multiple linear regression

Module 3: Pricing: [10 L]

Estimating Demand Curves, Price Bundling, Nonlinear Pricing, Price Skimming, Revenue Management. Steps of setting a pricing policy, different pricing objectives, estimating demand, forms of demand curve, excel for estimating linear demand curve, non-linear pricing strategy, price skimming strategy, revenue management and handling uncertainty.

Module 4: Consumer Analytics: [10L]

Calculation of customer lifetime value, using Monte Carlo Simulation to calculate customer value.

Module 5: Retailing: [10 L]

Market Basket Analysis, Lift, RFM Analysis, Allocating Retail Space and Sales Resources. Market Basket Analysis and Lift, Computing Lift for Two Products, Computing Three Way Lifts, Using Lift to Optimize Store Layout, Identifying the Sales to Marketing Effort Relationship, Modeling the Marketing Response to Sales Force Effort, Optimizing Allocation of Sales Effort, Using the Gompertz Curve to Allocate Supermarket Shelf Space

Module 6: Advertising: [15 L]

Measuring the effectiveness of advertisements, Pay Per Click Online Advertising. Measuring the Effectiveness of Advertising: The Adstock Model, Another Model for Estimating Ad Effectiveness, Optimizing Advertising: Pulsing versus Continuous Spending Pay per Click (PPC) Online Advertising: Defining Pay per Click Advertising, Profitability Model for PPC Advertising, Google AdWords Auction, Using Bid Simulator to Optimize Your Bid Module 7: Internet and Social Media Marketing [10 L]

- 1. Kotler Philip and Armstrong Gary: Principles of Marketing, Pearson.
- 2. Arun Kumar: Marketing Management, Vikas Publishing House.
- 3. Saxena, Rajan: Marketing Management, TMH.
- 4. Gandhi, J.C.: Marketing, TMH.
- 5. Wayne L. Winston: Marketing Analytics, Willey.
- 6. Farris: Marketing Metrics, Pearson.

HUMAN RESOURCE ANALYTICS

Paper Code: FYBBAGB 802B

Credits: 5

Module 1: Understanding HR analytics [10 L]

Definition of analytics, why HR analytics, Understanding the need, Becoming a persuasive HR function, Usage, ethics and limitations

Module 2: Basic concepts, module and application of HR Information Systems (HRIS) [10 L]

Define HRIS, benefits of HRIS, HRIS function, HRIS analysts

Module 3: Analysis strategies [10 L]

From descriptive reports to predictive analytics, Statistical significance, Data integrity, Types of data, Concept of Independent-Dependent variable, when to use which test.

Module 4: Employee attitude surveys – engagement and workforce perceptions [10 L]

What is employee engagement. How do we measure employee engagement, Interrogating the measures, Cases

Module 5: Predicting employee turnover and performance [10 L]

Employee turnover and why it is such an important part of HR management information, Descriptive turnover analysis, measuring turnover at individual or team level, Exploring differences in both individual and team-level turnover, Method and measure to indicate performance, Cases.

Module 6: Recruitment and selection analytics [10 L]

Reliability and validity of selection methods, Human bias in recruitment selection, Cases.

Module 7: HR Metrics [15 L]

Defining metrics, Demographics, data sources and requirements, Types of data, tying data sets together, Difficulties in obtaining data, ethics of measurement and evaluation. Human capital analytics continuum. Concepts of HR Dashboards, Defining dashboard, use of dashboard, how to create a dashboard. Cases.

- 1. Dr Martin Edwards, Kirsten Edwards: Predictive HR Analytics: Mastering the HR Metric, Kogan Page.
- 2. Ramesh Soundararajan and Kuldeep Singh: Winning on HR Analytics: Leveraging Data for Competitive Advantage, Sage.
- 3. Dipak Kumar Bhattacharyya: HR Analytics: Understanding Theories and Applications, Sage.
- 4. Jac FITZ-ENZ: The New HR Analytics: Predicting the Economic Value of Your Company's Human Capital Investments, Amacom.

FINANCIAL ANALYTICS Paper Code: FYBBAGB 802C Credits-5

Module 1: Introduction to Financial Analytics: [10 L]

Analytical thinking, Role of a Financial Analyst, News analytics (accessing news using web scrapping) and sentiment analysis in finance, Data Driven Financial Decision, Decision making under uncertainty

Module 2: Introduction to Analysis of Financial Data Using Statistical Tools: [15 L]

Statistical concepts; Probability, Normal, Lognormal distribution properties, Data visualization, understanding data in finance, cleaning and pre-processing of data, Application of software on different forms of financial data set-Time Series and Cross Sectional Data

Module 3: Financial Modelling: [20 L]

Introduction to Basic Financial Functions in Excel, Discounted Cash flows, Annuity, PMT, PV, NPV, IRR, Financial modelling using Ratios, income statement and financial statements using Excel

Module 4: Application of Data Science across Financial Services: [15 L]

Learn about Financial Data Analytics with respect to Data Science in Financial Services, Artificial Intelligence and Machine Learning in Financial Services, Usage of AI in Algorithmic Stock Trading, Automated Robo-Advisors, Fraud Detection and Prevention.

Module 5: Optimal Portfolio Allocation: [10 L]

Capital Allocation Line (CAL) and Optimal Portfolio, Lending and Borrowing on the CAL, analysis using indifference curves. CAPM- Features of Markowitz analysis, expected returns from historical averages, efficient frontier.

Module 6: Risk-Return Trade-off & Quadratic Utility: [5 L]

Investments and trade consumption across time, trade-off between risk and return, decision making under uncertainty, indifference curves, quadratic utility function, etc.

Suggested Reading:

- 1. M. J., & Hugen, D. L. Financial analytics with R: building a laptop laboratory for data science Bennett, Cambridge University Press.
- 2. Hilpisch, Y. " O'Reilly Python for Finance: Analyze big financial data, Media, Inc.".
- 3. Consoli, S., Reforgiato Recupero, D., & S. Data Science for Economics and Finance. Methodologies and Applications, Springer Nature.
- 4. Aldridge, I., & Avellaneda, M. John Big data science in finance- Wiley & Sons.
- 5. Lukomnik, J., & Hawley, J. P Moving Beyond Modern Portfolio Theory- Investing that Matters,.: Routledge.
- 6. Reilly, F. K., & Brown, K. C Investment Analysis and Portfolio Management., Cengage Learning.
- 7. Rees, M. John. Principles of financial modelling: model design and best practices using Excel and VBA. Wiley & Sons.

Note: Evaluation rubric for Capstone/Research Project (12 Credits, Sessional) shall be notified in advance