

## SEMESTER-VI

### COURSE 14 A: RESEARCH METHODOLOGY

Theory

Credits: 4

4 hrs/week

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**Course Objective:** To equip students with foundational knowledge on research methodology and develop skills to design, implement, and document a research project effectively.

#### Course Learning Outcomes:

After the completion of this course, the students will be able to

- Demonstrate the knowledge relating to research, its role in enhancement of knowledge in social sciences in general and economics in particular;
- Analyse and apply different research methods
- Formulate a good research design to undertake mini research projects;
- Undertake a field survey by himself/herself to collect relevant data and information;
- Develop capacity to write a simple project report with all relevant components.

#### Unit 1: Foundations of Research

- Meaning and Importance of Research
- Scientific and Social Science Research
- Objectivity vs Subjectivity in research: Methods of ensuring Objectivity in Social Science Research
- Limitations of Research in Social Science, Ethics in Research

#### Unit 2: Methods of Research

- Exploratory, Descriptive, Analytical, and Evaluation Research
- Experimental and Action Research
- Case Study, Observational, Participatory, and Ethnographic Research
- Mixed Methods Approach

#### Unit 3: Planning of Research Project

- Research Problem: Process and Criteria for Selecting a Research Problem
- Review of Theoretical literature and empirical research works in related area
- Writing research objectives and formulating hypotheses.
- Choice of Data for Research: Secondary and Primary Data; Census and Sample Data
- Preparation of a Research Proposal; Components of a good Research Proposal.

#### Unit 4: Implementation of a Research Project

- Designing Tools: Questionnaire, Interview Schedule, Pilot Testing
- Data Collection: Qualitative Techniques
- Data Collection: Quantitative Techniques
- Data Processing: Coding, Graphical Representation, Basic Statistical Analysis

## Unit 5: Report Writing

- Types of Research Report; Nature of Language used in Research Report
- Outlines of a good Research Report; Prefatory Items, Body of the Report, References, Bibliography, Appendices
- Ethical values in Research Report, Plagiarism Test
- Components of a good Research Paper

### References:

1. **Kurien, C. T.** (1973). *A Guide to Research in Economics*. Chennai: Sangam Publishers for Madras Institute of Development Studies
2. **Krishnaswami, O. R., & Ranganatham, M.** (2018). *Methodology of Research in Social Sciences*. Mumbai: Himalaya Publishing House
3. **Kothari, C. R.** (2004). *Research Methodology: Methods and Techniques*. New Delhi: New Age International Publishers
4. **Sharma, K. V. S.** (2010). *Statistics Made Simple: Do it Yourself on PC*, 2nd edition, New Delhi: Prentice Hall of India
5. **Creswell, J. W., & Creswell, J. D.** (2018), *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, New Delhi: Sage Publications
6. **Mishra, S. B., & Alok, S.** (2017). *Handbook of Research Methodology*, Bilaspur: Educreation Publishing
7. **Booth, W. C., Colomb, G. G., & Williams, J. M.** (2016), *The Craft of Research*, Chicago: University of Chicago Press
8. **Kumar, S. Anil, Poornima, S. C., Abraham, M. K., & Jayashree, K.** (2023), *Entrepreneurship Development*, 2nd ed, New Delhi: New Age International Publishers

### Web References

- National Digital Library of India (NDLI)  
<https://ndl.iitkgp.ac.in>
- SWAYAM – Research Methodology Courses  
<https://swayam.gov.in>
- Google Scholar  
<https://scholar.google.com>
- Shodhganga (INFLIBNET)  
<https://shodhganga.inflibnet.ac.in>
- Reference Managers  
<https://www.zotero.org>
- <https://www.mendeley.co>

## Video/Audio References

1. NPTEL Video Lectures – Research Methodology
2. SWAYAM MOOC: Research Methodology for Social Sciences
3. YouTube – UGC NET Research Aptitude Tutorials
4. Spotify Podcasts – "The Research Room"

## Co-Curricular Activities:

- **Mandatory** (*Training of students in the related skills by the teacher for a total 10 Hours*)
- **For Teacher:** Training of students by teacher in the classroom and in the field for a total of not less than 10 hours on skills and hands on experience like evaluation of program, selection of research problem, doing literature survey, preparation of research proposal, data editing, graphs and statistics, writing research report and paper etc. and make field visit to study a simple research issue. The expertise of practicing researchers can be utilized for this purpose.
- **For Students:** Students shall take up a small research issue of their interest and visit a field area related to that problem. They shall write their individual observations in the given format, not exceeding 10 pages, and submit to the teacher, as Fieldwork Report
- **Suggested Fieldwork Format** (*Report shall not exceed 10 pages*):
- Title Page, Student Details, Acknowledgments, Index page, Objectives, Step-wise process, Findings, Conclusion & References.
- Max Marks for Fieldwork Report: 05
- Unit Tests/Internal Examinations.

## Suggested Activities

- Unit-1: Group Discussion/Debate on “Can social science research be truly objective?”
- Unit-2: Seminar/Visual Poster on Qualitative vs Quantitative vs Mixed Methods
- Unit-3: Mini Field Project: Conduct brief field survey & formulate research questions
- Unit-4: Critical Review of a published journal article or thesis Unit
- Unit-5: Report Structuring Activity: Reconstruct a shuffled research report layout in teams

## SEMESTER-VI

### COURSE 14B: RETAIL AND DIGITAL MARKETING

Theory

Credits: 4

4 hrs/week

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**Course Objective:** This course provides a holistic understanding of retail marketing principles and practices, focusing on both traditional and digital retail environments with a view to equipping students to apply marketing strategies effectively across diverse platforms.

#### Course Learning Outcomes :

After completing the course, students will be able to:

- Explain the concepts and principles about the retail and digital marketing;
- Identify the behaviour of the consumers to promote retail marketing;
- Analyse and compare different strategies used in retail marketing;
- Apply digital marketing tools and techniques in real or simulated business environments;
- Evaluate retail and digital marketing models using case studies and market examples.

#### Unit- 1: Concept of Marketing

- Concept and Functions of Marketing; Types of Marketing
- Market Segmentation and Targeting; Marketing Mix and Strategy
- Marketing Research
- Major Pricing Strategies in Retail and Digital marketing

#### Unit- 2: Understanding Product and Consumer

- Types of Product Marketing; Product Decisions and Strategies
- Product Life Cycle Management
- Understanding Indian Consumer, Strategies of persuading the consumer
- Sale Promotion: Advertisement, Branding and Packaging

#### Unit- 3: Retail Marketing Models

- Concept and Types of Retailing; Big and Small Format Retail
- Retail Marketing Mix and Multi-channel Strategies
- Essentials of Successful Retailing; Retail Store Management
- Emerging Trends and Shopping Behaviour in Retail Markets

#### **Unit -4: Digital Marketing Models**

- Digital Marketing: Concept and Types
- Digital vs Physical Retail Marketing;
- Consumer Behaviour in Digital Space; Digital Strategy of Key Market Players
- Tools and Apps for Digital Marketing: Google trends, Youtube analytics

#### **Unit- 5: Marketing Models and Case Studies**

- Marketing Models of Retail and Digital Market Companies/Shops: Global, National and Local levels
- Case Studies on Physical Retailing: D-Mart, Vishal - Mart, Reliance etc
- Case Studies on e-Retailing: Instamart, JioMart, Meesho etc
- Student-led Case Presentations and Reflections

#### **References:**

1. **Levy, M., Weitz, B. A., & Grewal, D.** (2022). *Retailing Management*, 10th ed., New Delhi: McGraw Hill.
2. **Chaffey, D., & Ellis-Chadwick, F.** (2020), *Digital Marketing*, 7th ed., London: Pearson Education.
3. **Kotler, P., Keller, K. L.** (2021), *Marketing Management*, 15th ed., London: Pearson Education.
4. **Saxena, Rajan.** (2020), *Marketing Management*. New Delhi: McGraw Hill, India.

#### **Web Resources:**

- <https://neilpatel.com/training/>
- Google Digital Garage – Free certification in digital marketing
- HubSpot Academy – Free digital marketing courses
- Retailers Association of India – News, trends, and industry updates
- Think with Google – Insights into consumer trends

#### **Video/Audio Resources:**

- YouTube: “Simplilearn – Digital Marketing Full Course”
- Podcast: “Marketing School” by Neil Patel & Eric Siu

**Suggestive Activities:**

- Unit 1 – Concept Mapping (Understand): Students create a concept map linking key marketing terms and strategies in retail and digital contexts.
- Unit 2 – Product Life Cycle Analysis (Analyze): Students analyze the life cycle stage of a chosen product and suggest appropriate marketing strategies.
- Unit 3 – Retail Store Observation (Apply): Students visit a local retail store (or virtual tour) and report on store layout, retail mix, and shopper behavior.
- Unit 4 – Digital Tool Demo (Apply & Evaluate): In groups, students demonstrate a digital marketing tool by simulating a basic campaign or customer engagement strategy.
- Unit 5 – Case Study Presentation (Create & Evaluate): Students present a real retail or digital marketing case and lead peer discussion with structured feedback.

## SEMESTER-VI

### COURSE 15A: DATA ANALYSIS AND CASE STUDIES

Theory

Credits: 4

4 hrs/week

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**Course Objectives:** This undergraduate course provides an in-depth exploration of the Indian economy through data analysis, using Google Sheets as the primary tool with the option of using Excel sheets and SPSS package. The course is structured into five Units. The first unit provides basic knowledge on the use of Google Sheets, three on key aspects of the Indian economy, viz., agriculture and rural development, industry and infrastructure, public finance and external sector and the last one focuses on case studies of mini projects on local issues. Students will develop practical skills in sourcing or collecting secondary and primary data, cleaning, analysing, and interpreting India-specific economic data, culminating in a final project. No prior knowledge of Google Sheets is required, though familiarity with basic spreadsheets is beneficial.#

#### Course Learning Outcomes:

After successful completion of this course, the students will be able to

1. Acquire basic knowledge on operation of Google Sheets for Statistical analysis of economic data.
2. Analyse data on Indian agriculture and rural development to understand trends and policy impacts using Google Sheets.
3. Examine India's industrial and infrastructure data through sourcing, organization, and analysis in Google Sheets.
4. Apply data analysis to India's public finance and external sector using advanced Google Sheets tools.
5. Collect primary data, analyse and prepare a mini project report on local issues

#### Unit – 1: Introduction to Google Sheets

- Google Sheets Interface: Workbook, worksheets, rows, columns, cells, menus, and data entry.
- Basic Functions: SUM, AVERAGE, COUNT, IF, MIN, MAX – syntax and applications in economics.
- Data Management Tools: Sorting, filtering, conditional formatting, data validation.
- Chart Creation and Formatting: Line, bar, and pie charts – editing and presentation of economic data.

#### Unit 2: Exploring Agriculture and Rural Development

- **Macroeconomic Concept:** Agriculture and rural development (e.g., agricultural output, productivity, rural development programs).
- **Sources of Data:** Agricultural production and MSP data (<https://agricoop.nic.in>), RBI: Agricultural credit and pricing data (<https://www.rbi.org.in>), Andhra Pradesh Directorate of Economics and Statistics (<https://des.ap.gov.in/MainPage.do>)
- **Organizing Data:** Collect data on agricultural output, productivity, and rural development programs (e.g., PM-KISAN, MGNREGS, 2015–2024). Structure data in Google Sheets

with columns for year, crop output (e.g., rice, wheat), productivity (yield per hectare), and program expenditures. Clean data: standardize units (e.g., output in metric tons), remove outliers, and use conditional formatting to highlight key crops or regions.

- **Analysing Data:** Calculate average productivity and expenditure trends using AVERAGE and MEDIAN. Create bar charts to visualize agricultural output and rural program impacts. Analyse correlations between agricultural credit and productivity using the CORREL function.

### Unit 3: Investigating Industry and Infrastructure Development

- **Macroeconomic Concept:** Industry and infrastructure (e.g., industrial output, public vs. private sector, infrastructure investment).
- **Sources of Data:** Ministry of Commerce and Industry: Industrial production data (<https://commerce.gov.in>). RBI: Infrastructure investment statistics (<https://www.rbi.org.in>).
- **Organizing Data:** Collect data on industrial output and infrastructure investment (e.g., 2010–2024). Create a Google Sheets spreadsheet with columns for year, industrial production index, public/private sector contributions, and infrastructure spending. Clean data: standardize units (INR), handle missing values, and ensure consistent base years.
- **Analyzing Data:** Calculate growth rates for industrial output. Use pivot tables to summarize infrastructure spending by sector (e.g., power, transport). Create stacked bar charts to visualize public vs. private sector contributions.

### Unit 4: Evaluating Public Finance and External Sector

- **Macroeconomic Concept:** Public finance and external sector (e.g., fiscal deficits, foreign trade, balance of payments).
- **Sources of Data:** Union Budget of India: Fiscal data (<https://www.indiabudget.gov.in>). RBI: Balance of payments and trade data (<https://www.rbi.org.in>). Ministry of Commerce: Foreign trade statistics (<https://commerce.gov.in>), <https://dpiit.gov.in/publications/fdi-statistics>
- **Organizing Data:** Collect data on fiscal deficits, trade volumes, and balance of payments (e.g., 2010–2024). Create a Google Sheets spreadsheet with columns for year, fiscal deficit, exports, imports, and current account balance. Clean data: standardize units (INR or USD), handle missing values, and use data validation for accuracy.
- **Analyzing Data:** Use pivot tables to summarize fiscal expenditures by category (e.g., defence, education). Apply conditional formatting to highlight trade deficits or fiscal trends. Create charts (e.g., line charts for trade trends) and write a report to communicate findings.

### Unit 5: Mini Projects as Case Studies Using Primary Data

- **Concept:** Collecting data on local issues such as Income and Consumption behaviour of households, Role of Microfinance in alleviating poverty, problems of migrant workers working in unorganized sectors like construction activities, Problems of Gig workers, Issues in Local environmental and public problems such as vehicular traffic, air pollution, water pollution or any other relevant issue to undertake small project.

- **Organizing Data:** Collect data using small questionnaires or schedules, enter the data in Excel sheets, Cross check, clean and standardize data for missing values, and validate data for accuracy.
- **Analysing Data:** Use pivot tables to get summary measures of averages, measures of dispersion, Correlation, Regression analysis, t-test, F-test, Chi-square test, ANOVA and interpret the results in a report not exceeding 5 to 10 pages.

**#Note to the Teacher:** Since this course is the final part of the first stream of A series optional courses the students would have gained adequate knowledge on Statistical Methods, Inferential Statistics, Statistical packages like Excel and SPSS, they would be able to apply all the tools and techniques they have learned through above courses. The teacher needs to introduce the particular topic given in each of the above five domains or any other relevant one in the opinion of the teacher to the students, instructing them to undertake the data analysis and interpretation of the results.

### Course Resources

- **Software:** Google Sheets (free, accessible via Google account).
- **Datasets:** India-specific economic datasets from RBI, MoSPI, Ministry of Commerce, Ministry of Agriculture, Government Budgets, CMIE, and international sources (UNDP).
- <https://www.data.gov.in/>
- <https://www.ap.data.gov.in/>
- **References:**
  - Datt, G., & Mahajan, A. (2023). Indian Economy (81st ed.). New Delhi, India: S. Chand Publishing.
  - Google Sheets documentation for functions, pivot tables, and visualization tools.
- **Supplementary Tools:** Google Sheets add-ons like "Data Analysis Toolpak" for statistical functions.

## SEMESTER-VI

### COURSE 15B: LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Theory

Credits: 4

4 hrs/week

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**Course Objective:** This course provides a holistic understanding of how Logistics and Supply Chain Management play a vital role in cutting costs and boosting customer satisfaction to equip students to study transportation basics, containerization, packing variations, and the complexities of export logistics.

#### Course Learning Outcomes:

After completing the course, students will be able to:

1. Explain the strategic role of Logistics and Supply chain Management in cost reduction and offering improved service to the customers.
1. Combine the traditional physical distribution activity with modern Information Technology.
2. Analyse and explain the Basics of transportation and Containerization.
3. Distinguish between essential features of various types of Packing and Packaging.
4. Evaluate special aspects of export logistics.

#### Unit-1: Introduction

- Meaning, Importance and Concepts of Logistics and Supply Chain Management (LSM)
- Evolution of LSM - Key Drivers of Supply Chain Management and Logistics Relationships
- National Logistic Policy and LEADS Index in India

#### Unit - 2: Basics of Transportation

- Transportation Functionality and Principles - Multimodal Transport - Modal characteristics
- Modal Comparisons - International Air Cargo Transport - Coastal and Ocean transportation - Types of Ships - Characteristics of Shipping Transport.

#### Unit 3: Containerization

- Genesis, Concept, Classification, Benefits and Constraints of Containerisation
- Inland Container Depot (ICD): Roles and Functions Container Freight Station (CFS)
- Export Clearance at ICD CONCOR - ICDs under CONCOR.

#### **Unit - 4: Packing and Packaging**

- Meaning, Functions and Essentials of Packing and Packaging
- Types of Packaging - Packing for Storage Product Content Protection Requirements of Consumer Packaging, Channel Member Packaging and Transport Packaging - Shrink Packaging
- Identification Codes, Bar Codes, and Electronic Data Interchange
- Universal Product Code - GSI Standards - Package Labels and Symbols

#### **Unit - 5: Special Aspects of Export logistics**

- Picking, Packing, Vessel Booking (Less-than & Full Container Load), Customs, Documentation, Shipment, Delivery to Distribution Centres, Distributors and Retail Outlets
- Import Logistics: Documents Collection, Valuing, Bonded Warehousing Customs Formalities, Clearing & Distribution to Units.

#### **References:**

1. Altekar, R. V. (2005). *Supply chain management: Concepts and cases*. New Delhi: PHI Learning.
2. Ballou, R. H. (2004). *Business logistics/supply chain management: Planning, organizing, and controlling the supply chain* (5th ed.). London: Pearson / Prentice Hall.
3. Bowersox, D. J., Closs, D. J., Cooper, M. B., & Bowersox, J. C. (2013). *Supply chain logistics management* (4th ed.). New Delhi: McGraw-Hill.
4. Chopra, S., Meindl, P., & Kalra, D. V. (2013). *Supply chain management: Strategy, planning, and operation* (5th ed.). London: Pearson Education.
5. Sahay, B. S. (2000). *Supply chain management for global competitiveness*. New Delhi: Macmillan India.
6. Open Source Online Materials & Videos: IGNOU, e-PG Pathasala, SWAYAM, Khan Academy etc.

#### **Suggested Activities:**

1. Assignments and Student Seminars on themes of Logistics
2. Quiz testing the understanding and application of Supply chain management
3. Student study project in local markets
4. Group discussions on special aspects of export logistics and their effectiveness.