

DSRM 2001	Research Methodology and Report Writing	L	T	P	C
Version 1.0		3	0	0	0
Pre-requisites/Exposure	Students should have an aptitude and interest of computational mathematics and statistics				
Co-requisites	Students should have ability to connect with business/social issues				

Course Objectives

1. To have the knowledge to Identify a business problem and making a functional research design
2. To be able to develop a procedure for data collection through instrument design
3. To be able to analyze data using Hypothesis testing
4. To be able to write and present a good research report

Course Outcomes

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

- CO1. Have the knowledge to Identify business problem
- CO2. Have the skill of making appropriate Research Design
- CO3. Have the concept of probability, estimation and hypothesis testing so as to choose the appropriate analytical tools.
- CO4. Have the skill to make an excellent research report.

Catalog Description

All Business students require the ability to deal with quantitative material, including the collection, collation and analysis of data. This course introduces students to research methods in business mainly centered on statistical aspects. It also provides them with experience in designing questionnaires and report writing. In order to effectively carry out statistical analysis, the students are required to have experience of computing.

Course Content

1 lecture hour=60 minutes

Unit I: Research Process & Research Designs

11 lecture hours

- Introduction to research
- Objectives of Research
- Applications of Research
- Role of Research
- Problem formulation
- Various Steps in Research process
- Types of Qualitative Research
- Types of Quantitative research
- Types of research design

- Exploratory
- Descriptive
- Experimental

Unit II: Data Collection Methods & Measurement

12 lecture hours

- Types of data Collection
 - Primary
 - Secondary
- Data Collection Methods
- Data Sources
- Sampling fundamentals
- Determination of sample size
- Sampling errors
- Measurement & Scaling Techniques
- Questionnaire Designing

Unit III: Estimation and Hypothesis testing

10 lecture hours

- Point and Interval Estimates of Means
- Hypothesis formulation & Testing
 - Basic Concepts
 - Type-I and Type-II Error
 - One Tailed and Two Tailed Tests.
 - Concept of level of significance
 - Degree of freedom
- Z-Test (for large sample)
- t-Test (for small sample)
- F-Test
- Chi-square Test (Non-parametric)

Unit IV: Report Writing Mechanics

03 lecture hours

- Structure and Components of Research Report
- Types of Research Report,
- Criterion for Good Research Report
- Methodology of writing technical reports.
- Components of research Reports
- Formulation of research report
- Presentation of research reports

Text Books

Kothari, C. R. (2016), Research Methodology, New age international publishers, ISBN: 978-93-86649-22-5.

Pannerselvam, R (2016), Research Methodology, PHI Pvt. Ltd., New Delhi, ISBN: 978-81-203-4946-9.

Reference Books

Branica, T & Roche, W.K. (1997), Business Research Methods, Jaycob Publishing House, ISBN: 1860760007 9781860760006

Chawla, Deepak & Sondhi, Neena (2016), Research Methodology- Concept & Cases, Vikas Publication, ISBN: 978-93259-8239-0.

Eswaran, S & Singh, S J (2010), Marketing Research, OXFORD University Press, ISBN: 978-0-19-567696-9.

Ghuri, Pervez & Gronhaug, Kjell (2010), Research Methods in Business Studies, Pearson, ISBN: 978-0273712046.

Gupta, S L & Gupta, H (2012), Business Research Methods, TMHE Pvt. Ltd, ISBN: 978-1-25-900503-9.

Gupta and Kapoor (2014), Fundamentals of Applied Statistics, Sultan Chand & Sons, ISBN: 978-8180547058.

Gupta and Kapoor, (2002), Fundamentals of Mathematical Statistics, Sultan Chand & Sons, ISBN: 81-7014-791-3.

Krishnaswamy, K N, Siva Kumar, A and Mathirajan, M (2011), Research Methodology, Pearson, ISBN: 978-81-7758-563-6.

Wilson (2013), Essential of Research Methods, SAGE Publication, ISBN: 9781446257333.

Sachdeva, J.K. (2009), Business Research Methodology, Himalaya Publishing House, ISBN: 9781441676108.

Trochim, W.M.K. (2003), Research methods, Dreamtech Press, ISBN: 9788177223729.

Shao & Zhou (2006), Marketing Research, Cengage Learning Pvt. Ltd, ISBN: 978-1592602889.

Cauvery, R., Nayak, U. K. S., Girija, M. & Meenakshi, R. (2003), Research Methods, Sultan Chand & company Ltd, ISBN: 9788121922203.

Lee, Nick & Lings, Ian (2009), Doing Business Research, Sage South Asia, and ISBN: 978-8132104544.

Mark Saunders, Lewis. & Thornhill, A. (2015), Research Methods for Business Students, Pearson Education, ISBN: 978-12920166,

Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination Examination Scheme:

Examination Scheme:

Components	MSE	IA	ESE
Weightage (%)	20	30	50
		<ul style="list-style-type: none"> • Case Presentation (30 Marks) • Online Assignments (40 Marks) • Quiz (30 Marks) 	

Relationship between the Course Outcomes (COs) and Program Outcomes (POs)

Mapping between COs and POs					
	<table border="1"> <thead> <tr> <th>Course Outcomes (COs)</th> <th>Mapped Programme Outcomes</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Course Outcomes (COs)	Mapped Programme Outcomes		
Course Outcomes (COs)	Mapped Programme Outcomes				

CO1	Have the knowledge to Identify business problem .	PO 1, 2, 4, 8,9,12
CO2	Have the skill of making appropriate Research Design	PO 2,3,4,8,7,8
CO3	Have the concept of probability, estimation and hypothesis testing so as to choose the appropriate analytical tools.	PO 3,4,6,8, 9, 12
CO4	Have the skill to make an excellent research report.	PO 4,5,6,7,9,10,11


Program Outcome / Course Outcome mapping

Course Outcomes	CO 1	CO 2	CO 3	CO 4
PO 1	3	3	3	2
PO 2	3	3	3	2
PO 3	3	3	3	2
PO 4	3	1	1	3
PO 5	2	2	1	3
PO 6	2	2	2	2
PO 7	3	3	1	2
PO 8	3	3	3	3
PSO 9	3	3	3	1
PSO 10	3	3	3	2
PSO 11	3	3	3	2
PSO 12	1	1	1	3

			Students will demonstrate strong conceptual knowledge of management & its functional areas.	Students will demonstrate effective oral and written communication skills in the professional context.	Students will be able to work effectively in teams and demonstrate team-building capabilities.	Students will be able to evaluate the legal, social and economic environments of business.	Students will be able to describe the global environment of business.	Students will demonstrate sensitivity towards ethical and moral issues and have ability to address them in the course of business.	Students will be able to apply decision-support tools to business decision making.	Students will be able to apply knowledge of business concepts and functions in an integrated manner.	Students will demonstrate conceptual domain knowledge of the logistics sector.	Students will apply decision-support tools to decision making in logistics sector.	Students will apply conceptual knowledge of logistics sector in an integrated manner.	Students will demonstrate employable and deployable skills for appropriate roles in management.
DSR M 2001	Research Methodology and Report Writing	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	P O 7	PO 8	PS O 9	PS O 10	PS O 11	PSO 12	
		3	3	3	2	2	2	2	3	2	3	3	2	

- 1 – Weakly mapped**
- 2 – Moderately mapped**
- 3 – Strongly mapped**

Model Question Paper

Name: Enrolment No:			
<p align="center">Course: DSRM 2001 – Research Methodology and Report Writing</p> <p>Programme: BBA (LM) Semester: EVEN (IV)-2018 Time: 03 hrs. Max. Marks:100</p> <p>Instructions: Attempt all questions from Section A (each carrying 2 marks); any Five Questions from Section B (each carrying 10 marks). Section C (Case Study) is Compulsory (carrying 30 marks).</p>			
Section A (attempt all questions)			
1.	I. If a nominal scale is used, it is permissible to calculate which of the following statistics? a) Mean b) Standard deviation c) Range d) Percentile e) Mode	[2]	CO3
	II. Conditions favoring the use of a sample over a census include a: a) Small population size b) Long time frame c) Small budget d) High cost of sampling errors e) Low cost of non-sampling errors	[2]	CO2
	III. An advantage of computer-assisted telephone interviewing is: a) Interviewing time is reduced b) Data quality is enhanced c) Questionnaires do not have to be coded d) There is little opportunity for interviewer bias e) This method tends to achieve high response rates compared to other methods	[2]	CO2
	IV. Increasing the size of the sample is likely to: a) Decrease sampling error but increase non-sampling error b) Increase sampling error but decrease non-sampling error c) Decrease both sampling error and non-sampling error d) Increase both sampling error and non-sampling error	[6]	CO2

	e) Increase sampling error but have no impact on non-sampling error		
	<p>V. If an interview is conducted with a respondent who does not meet the qualifications for a study, what kind of bias has occurred?</p> <p>a) Position bias b) Respondent bias c) Lifestyle bias d) Non-response bias e) Instrument bias</p>	[2]	CO3
	<p>VI. The telephone rings, you answer, and the caller asks you to respond to a survey. After a few questions, the caller begins to offer you the opportunity to purchase land at a local lake for a summer home. This practice is known as _____ and is _____ in many countries.</p> <p>a) Fragging, unethical b) Fragging, illegal c) Sagging, unethical d) Sagging, illegal e) Sagging, ethical</p>	[2]	CO3
	<p>VII. If a company is interested in determining the in-store shelf exposure of their brand versus competitive brands, the most effective way to obtain this information is via:</p> <p>a) Scanner data b) In-store intercepts with consumers observed purchasing a product in the category c) Telephone interviews with individuals who made a recent category purchase d) An audit e) Diary panel data from individuals making purchases in the category</p>	[2]	CO3
	<p>VIII. A recent study of car owners indicated that 10% felt Brand A had the best quality, 9% felt Brand B did, and 6% felt other models did. The remainder had no opinion. The advertising claim that most car owners who gave an opinion believe that Brand A has the best quality is an example of _____ which is _____.</p> <p>a) Biased research, unethical b) Effective advertising, ethical c) Misleading reporting, unethical d) Incomplete reporting, unethical e) Accurate reporting, ethical</p>	[2]	CO2
	<p>IX. Mr. Sharma goes to a fast food restaurant and records how many people order veg burgers versus cheeseburgers and whether or not they order a coke versus a diet coke. Beth is involved in a _____:</p>	[2]	CO2

	<ul style="list-style-type: none"> a) Case study b) Naturalistic observation c) Survey d) experiment 		
	<p>X. To follow journal article would be an example of _____ research; "The benefits of florescent lighting on production in a factory setting."</p> <ul style="list-style-type: none"> a) Applied b) Interview c) Basic d) All of these 	[2]	CO2
SECTION B (Attempt any Five Questions)			
2.	In business situations, it is not always possible or feasible to collect information related to every unit of the population under study. Researchers have to adopt a sampling technique best suitable to study a given population. Explain various types of sampling methods with relevant examples?	[10]	CO2
3.	Under what circumstances would you recommend: <ul style="list-style-type: none"> a) A stratified sample? (b) A cluster sample 	[10]	CO2
4.	Are the following nominal, ordinal, interval or ratio data? Explain your answers. <ul style="list-style-type: none"> (a) Temperatures measured on the Kelvin scale. (b) Military ranks. (c) Social security numbers. (d) Number of passengers on buses from Delhi to Mumbai. (e) Code numbers given to the religion of persons attempting suicide. 	[10]	CO3
5.	A contractor spends Rs. 3,000 to prepare for a bid on a construction project, which, after deducting manufacturing expenses and the cost of bidding, will yield a profit of Rs. 25,000 if the bid is won. If the chance of winning the bid is ten percent, compute his expected profit and state the likely decision on whether to bid or not to bid.	[10]	CO3

6.	<p>The following table shows the results of a paired-comparison preference test of four cold drinks from a sample of 200 persons:</p> <table border="1" data-bbox="253 604 1214 926"> <thead> <tr> <th>Name</th> <th>Coka Cola</th> <th>Sprite</th> <th>Dew</th> <th>Thumsup</th> </tr> </thead> <tbody> <tr> <td>Coka Cola</td> <td>-</td> <td>60*</td> <td>105</td> <td>45</td> </tr> <tr> <td>Sprite</td> <td>160</td> <td>-</td> <td>150</td> <td>70</td> </tr> <tr> <td>Dew</td> <td>75</td> <td>40</td> <td>-</td> <td>65</td> </tr> <tr> <td>Thumsup</td> <td>165</td> <td>120</td> <td>145</td> <td>-</td> </tr> </tbody> </table> <p>* To be read as 60 persons preferred Sprite to Coca Cola.</p> <p>(a) How do these brands rank in overall preference in the given sample?</p> <p>(b) Develop an interval scale for the four varieties of cold drinks.</p>	Name	Coka Cola	Sprite	Dew	Thumsup	Coka Cola	-	60*	105	45	Sprite	160	-	150	70	Dew	75	40	-	65	Thumsup	165	120	145	-	[10]	CO3
Name	Coka Cola	Sprite	Dew	Thumsup																								
Coka Cola	-	60*	105	45																								
Sprite	160	-	150	70																								
Dew	75	40	-	65																								
Thumsup	165	120	145	-																								
7.	<p>A company gives on the job training to its salesperson, which is followed by a test. It is considering whether it should terminate the services of any salesperson who does not do well in the test.</p> <p>The following data give the test scores and sales made by nine salespersons during the last one year:</p> <p>Test scores : 14 19 24 21 26 22 15 20 19</p> <p>Sales (Rs.'000) : 31 36 48 37 50 45 33 41 39</p> <p>(i) Compute the coefficient of correlation between test scores and sales.</p> <p>(ii) Does it indicate that termination of the services of salespersons with low-test scores is justified?</p>	[10]	CO3																									
SECTION C is Compulsory(Case Study)																												
8.	<i>A new Scheme of health Insurance in Reliance Oil Company</i>	[30]	CO2																									

A company is considering the Introduction of a new scheme of health insurance for the benefit of its employees. However, before taking any final decision, it would like to know the reaction of its employees towards this scheme.

Since it has a large number of employees, the company has decided to collect some information from a sample of its employees. Information collected from 50 employees shown in Exhibit1:

1. There are 50 respondent.
2. Col. 2 indicates the new scheme. Respondents were asked to show their preference or dislike on a five-point scale. The value denote the preferences as follows:
Extremely interested
Interested
Indifferent
Not Interested
Not at all Interested
3. Sex—M: Male; F: Female
4. Marital Status—M: Married; S: Single
5. Age in years
6. Education: Four categories
Below Higher Secondary
Higher Secondary
Graduation
Post- Graduation
7. Present Health Insurance scheme: Four categories
Private Doctor—Own expenses
Government/corporation Hospital
Partial reimbursement from an outside agency
Full reimbursement from an outside agency
8. Monthly Income: Four categories
Less than Rs. 10000
Rs. 10000-20000
Rs. 20000-40000
Rs. 40000 +

You are now required to analyse the data.

Questions

1. Divide the sample into two groups: (a) those showing interest in the scheme (b) those who are either indifferent or not interested in the new scheme. Cross tabulate these two groups along with education(higher education—graduation and above and Lower education—below graduation)and age group(older respondents—40 years and above and younger respondents—below 40 years of age)
 2. What is your finding? Is the association statistically significant at the 5% level?

Exhibit 1

&
CO4

Respondent	Concept rating	Sex	Marital status	Age (years)	Education	Present scheme	Monthly Income
1	3	M	M	25	1	2	1
2	2	M	M	27	3	2	2
3	2	F	S	28	3	3	3
4	5	M	S	24	4	1	4
5	3	M	M	30	2	2	2
6	1	M	S	35	2	3	3
7	2	F	M	39	2	3	2
8	4	F	S	37	4	1	3
9	4	M	M	36	3	1	3
10	2	F	M	29	3	2	2
11	3	M	S	41	1	2	1
12	1	M	S	43	1	1	2
13	2	M	M	40	2	1	1
14	5	F	M	31	3	3	4
15	4	M	S	35	3	1	3
16	3	F	S	45	2	2	3
17	2	F	M	46	1	1	1
18	4	M	S	38	3	1	2
19	5	F	M	40	4	1	3
20	4	M	S	39	4	3	4
21	2	M	S	27	3	2	2
22	3	M	M	27	3	1	3
23	4	F	S	31	3	1	3
24	5	M	M	24	4	2	4
25	2	F	S	32	3	3	3
26	4	M	M	38	4	1	3

27	2	F	M	25	3	3	2
28	3	F	M	29	2	2	2
29	4	M	S	40	3	1	2
30	3	F	S	45	4	2	4
31	4	F	M	35	3	1	3
32	5	F	S	32	4	1	3
33	1	M	S	29	2	3	3
34	2	M	M	42	2	2	1
35	1	F	M	27	1	2	2
36	3	M	M	29	1	3	1
37	4	M	S	28	2	1	3
38	3	M	M	41	2	2	1
39	4	M	S	43	3	1	2
40	3	F	S	50	2	3	1
41	5	M	M	52	3	1	3
42	3	F	M	47	4	2	3
43	4	F	S	30	3	1	2
44	2	M	M	53	1	2	1
45	1	M	S	39	2	3	2
46	4	F	M	55	3	2	2
47	3	M	S	49	1	3	2
48	4	F	M	38	2	1	3
49	3	M	S	27	3	3	2
50	4	F	S	46	3	1	3