KUMARAGURU
college of technology
character is life

Register Number: …………………

MBA DEGREE EXAMINATIONS: NOV /DEC 2024

(Regulation 2022)

Second Semester

MASTER OF BUSINESS ADMINISTRATION - PROJECT MANAGEMENT

P22MPB2911: Research Methodology

COURSE OUTCOMES

CO1: Explain the principles of research and its role in supporting decision making

CO2: Formulate the foundations for carrying out research

CO3: Display ability to perform various statistical tools on Research.

Time: Three Hours   **Maximum Marks: 100**

PART A (10Q x 2 Mark = 20 Marks)

1.	Define the term Research.	CO1 [K$_1$]
2.	List the major components of good research	CO1 [K$_1$]
3.	Explain the difference between simple random sampling and convenience sampling.	CO1 [K$_2$]
4.	Infer about the Likert scale used in the research.	CO1 [K$_2$]
5.	Explain Exploratory research	CO2 [K$_2$]
6.	Infer the term validity in data analysis	CO2 [K$_2$]
7.	Outline about the Type I error in research	CO2 [K$_1$]
8.	Identify the advantages and disadvantages of secondary methods of data collection?	CO2 [K$_2$]
9.	Recall the concept of outliers in statistical analysis.	CO3 [K$_1$]
10.	Explain the significance of data visualization in research.	CO3 [K$_2$]

PART B (5Q x 8 Marks = 40 Marks)

11.	A	The research process involves a series of interrelated and intricate steps. Does every research study necessarily need to satisfy all the conditions and be carried out in the sequence? Explain	CO1 [K$_5$]
		(OR)	
11.	B	Appraise how would a literature search and research on best practices guide your approach to project planning and execution?	CO1 [K$_5$]
12.	A	How does customer satisfaction vary across different project stages in the organization? Outline about the list of variables while using descriptive research for measuring customer satisfaction	CO1 [K$_5$]
		(OR)	
12.	B	You are planning a study to assess customer satisfaction with project deliverables. Explain how determination of sample size is crucial for obtaining reliable and meaningful results.	CO2 [K$_5$]
13.	A	A project team wants to measure the effectiveness of training programs	CO2 [K$_6$]

on employee productivity. Discuss the role of validated instruments in gathering meaningful data for this evaluation.

(OR)

13. B For the output given for a survey taken from 120 responses, can you interpret the list of variables that are valid and Invalid. Explain the reasons.   CO2 [K5]

Item	Mean	Std. Deviation	Item-Total Correlation	Cronbach's Alpha
Q1: Task clarity	4.2	0.8	0.65	0.53
Q2: Resource availability	4	0.9	0.6	0.55
Q3: Timely support	4.1	0.7	0.35	0.61
Q4: Skill adequacy	4.3	0.6	0.7	0.84
Q5: Workload balance	3.8	1	0.55	0.87
Q6: Goal alignment	4.2	0.7	0.28	0.63
Q7: Team collaboration	4.4	0.5	0.73	0.84
Q8: Management feedback	4	0.9	0.66	0.85

14. A Compare and contrast the use of focus group discussions and in-depth interviews as data collection methods in this scenario.   CO2 [K5]

(OR)

14. B Explain the process of developing a structured questionnaire for data collection in project management research.   CO2 [K5]

15. A Compare about the univariate and bivariate analysis techniques in project research.   CO3 [K5]

(OR)

15. B   CO3 [K4]

Measure	Value
Mean	7.2
Median	7.5
Mode	8
Standard Deviation	1.8
Variance	3.24
Range	7
Skewness	-0.62
Kurtosis	1.9)

Above is the employee scores measured in a scale of 1 to 5 from strongly disagree to Agree for a sample of 160 responses. Interpret the above descriptive statistics.

Part – C (2Q x 20 Mark = 40 marks) Answer Any Two Questions Only

16. In a survey, data was collected from 45 respondents about gender, usage, Awareness, Attitude, Preferences, Intention and Loyalty about Nike shoes in a 7-point Likert scale starting from 1= Very Unfavorable to 7= Very Favorable. The Output is given below,   CO3 [K5]

Table No: 01 - Statistics

		Usage	Gender	Awareness	Attitude	Preference	Intention	Loyalty
N	Valid	45	45	45	45	45	45	45
	Missing	0	0	0	0	0	0	0
Mean		2.07	1.51	4.53	4.33	4.40	4.16	3.96
Median		2.00	2.00	5.00	4.00	4.00	4.00	4.00
Skewness		-.132	-.046	-.032	.249	.410	.409	.570
Std. Error of Skewness		.354	.354	.354	.354	.354	.354	.354
Kurtosis		-1.665	-2.093	-.630	-.529	.244	.361	-.132
Std. Error of Kurtosis		.695	.695	.695	.695	.695	.695	.695
Percentiles	25	1.00	1.00	3.00	3.00	3.00	3.00	2.50
	50	2.00	2.00	5.00	4.00	4.00	4.00	4.00
	75	3.00	2.00	6.00	6.00	5.50	5.00	5.50

Table No: 02 - Crosstab

Expected Count

		Usage			Total
		very unfavourable	Moderately unfavourable	slightly unfavourable	
Gender	Male	7.3	5.9	8.8	22.0
	Female	7.7	6.1	9.2	23.0
Total		15.0	12.0	18.0	45.0

Table No: 03 - Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.868[a]	2	.238
Likelihood Ratio	2.908	2	.234
Linear-by-Linear Association	2.380	1	.123
N of Valid Cases	45		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.87.

a. Interpret the descriptive statistics for the output given in table no: 01 (10 Marks)
b. Do the male and female differ about usage of Nike shoes (5 Marks)
c. Formulate suitable hypothesis and interpret from the Chi-square test results (05 Marks)

17. **Research** **Question**: CO3 [K5]

Is there a significant difference in employee job satisfaction scores among three different departments (Sales, HR, and IT)

Descriptive Statistics		
Group	N	Mean Rank
Sales	5	8.6
HR	5	6.4
IT	5	13
Total	15	-

Test Statistics Table	
Test Statistic	Value
Chi-Square	6.543
Degrees of Freedom (df)	2
Asymptotic Sig. (p-value)	0.038

a. Formulate suitable hypothesis and intrepret the above results (10 Marks)

b. List the assumptions and limitations of Kruskalwallis Test (10 Marks)

18. Assume you work for a rapidly growing technology startup that has experienced recent expansion and changes in organizational structure. The company prides itself on innovation and a dynamic work environment. However, there has been a noticeable decline in employee satisfaction survey scores over the past year, and the management team is concerned about retaining talent and maintaining productivity. Employee turnover rates have increased, particularly among software developers and engineers. Recent anonymous feedback from employees indicates dissatisfaction with communication channels, work-life balance, and career development opportunities. Employee engagement levels during team meetings and project collaborations have decreased. CO3 [K$_5$]

a. Identify and formulate the research problem (05 Marks)
b. List the possible research questions that you would like to address (10 Marks)
c. Identify a suitable research design would you like to adopt to solve the issue (05 marks)

****