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Subject: Business Research Methods

PGDM-FS- II TRIM 2017-19

Maximum Marks: 50

Duration: 3hours

Date:30/12/2017

Instructions

1. *Attempt any 5 questions. (10 marks each)*
2. *Take assumptions where ever necessary and make a note of it.*
3. **Data** is in excel file (all questions in separate worksheet)
4. **All Answers to be given in a single word document and save all the SPSS data and SPSS output sheet in same folder.**

Question 1

Q1.1 The executive board of relatively small university located in Europe wants to determine the attitude of their students towards various aspects of the study. The University founded in 1928 is a fully accredited government funded university with 11,000 students. The University specializes in Social Science and Humanities and has 5 faculties and 6 service departments, eight research centers and 2 graduate schools. The executive board has asked you to come up with a sampling plan. Develop a sampling plan and explain the following aspects: Target Population, sampling frame and sampling technique.

Q1.2 The human resource Director of a company with 120 people on its payroll has been asked by the Vice President to give a feedback on formulating an implementable flexi time policy. The Director feels that such a policy is necessary as everyone doesn't seem to be happy with 9 to 5 hrs. and people have complained. Formulating such a policy now, in the opinion of the Director will help different department people like sales etc. and with results, convince the V.P. that there is a need for flexitime. Suggest a suitable sampling technique and justify.

Q1.3 An administrator wants to access the reactions of employees to a new and improved health benefits scheme that requires a modest increase in the premiums to be paid by employees for their families. Explain the administrator an easy and quick sampling technique.

Q1.4 What are sampling and non-sampling errors in general? Explain with one example of

each?

Q1.5 Name any 3 factors that help in determining sample size of a study in general?

Question 2

Vardhaman Ltd. is a well-established company in the textile and garment industry promoted by Ranjan Malaya group. The company's business is divided into three major segments: textile, files and tools, and Air Charter Services. The textile business forms the core business with a contribution of 77% to the total sale during the year 2006-2007

Table 1 provides the Income, Ad Expenditure, Marketing Expense, Distribution Expense and Forex Earnings of Raymond Ltd from March 1990 (financial year 1999-1990) to March 2007 (financial year 2006- 2007).Generate a Regression Model generated by taking income as dependent variable.

On the basis of regression output (Enter Method) answer the following question:

- a. Is it suitable to run regression analysis? How will you decide?
- b. What is the role of ANOVA in regression analysis?
- c. Develop an estimated regression equation that can be used to predict Income
- d. Comment on the variables contributing significantly
- e. Explain Adjusted R Square.

Question 3

Q3.1 Student's IQ level in the regular day time MBA program and the evening program of Central University of Mumbai are described by these two different samples

- a. Frame hypothesis
- b. If the higher IQ level the class is a positive factor in learning, use suitable test to suggest which of the two groups will be easier to teach and why?
- c. Suggest an appropriate primary data collection technique in such cases.

Q3.2 In the theory of finance, a market for any asset or commodity is said to be efficient if items of identical quality and other attributes (such as risk in case of stocks) are sold at the same price. A Geneva base oil Industry analyst want to test the Hypothesis that the spot market for crude oil is efficient. The analysis chooses the Rotterdam oil market, and he selects and Arabian Light as the type of oil to be studied. (Differences in location may cause price differences because of transportation cost and difference in type of oil-hence the quality of oil also effects the price. Therefor both the type and location must be fixed). A random sample of 8 Observations from each of the four sources of spot price of a barrel of oil during February 2007 is collected. Data in

U.S. dollars as per barrel is collected. Based on the data, what should these analysts conclude about whether the market for crude oil is efficient or not? What is the kind of scale used in ANOVA?

Question 4

Q4.1 Twenty two executive trainees are assigned selling jobs right after their recruitment. After a fortnight they are withdrawn from their field duties and given a month’s training for executive sales. Sales executed by them in thousands of rupees before and after the training, in the same period. Use data given in worksheet one and comment on the following:

- a. State Research hypothesis
- b. Do these data indicate that the training has contributed to their performance?

Q4.2. A sugarcane factory claims to pay highest wage to its daily wage workers among similar sugarcane factories. In order to validate that claim of daily wage as Rs. 200, a leading labor activist on voluntary basis collects data of 400 workers. On the collected data apply suitable test and address the following questions:

- a. State Null and alternative hypothesis
- b. Can ANOVA be applied in this situation? Justify.
- c. What is the conclusion of the activist about the claim of the factory
- d. What is the measurement scale used?
- e. State assumptions of t test

Question 5

You are summer trainee of Star car manufacturers, who wants to release a small car into the market. For this purpose they have asked you to survey 100 respondents about their perceptions and image attributes of small cars (Refer Table-1)

Table 1

Attributes(variables)	1completely agree	2 agree	3neutral	4disagree	5completely disagree
1. The price of the car should be reasonable.					
2. Fuel mileage of the car should be at least 17 km/hr.					
3. A small car should be easy to maintain and to be serviced .					
4. Seating should be					

comfortable for four adults.					
5. A small car should have adequate leg space and headroom.					
6. Brakes are the most critical part of a small car.					
7. Collapsible steering column should be standard equipment in all the new cars.					

You have come out with the below given factor analysis results. On the basis of statistical tables generated, address the following Managerial issues:

- a. What is the role of factor analysis? Justify its application in your study.
- b. Is the sample size sufficient to run this analysis? If KMO value comes below 0.20, how would you address its implications?
- c. Which table explains individual variance of each and every variable and what do you deduce from your table?
- d. Extract the factors and summarize them.
- e. Explain role of Total Variance Explained in this analysis.

Question 6.

‘Companies benefit through employees loyalty. Crude downsizing in organizations during the recession crushed the loyalty of millions. The economic benefits of loyalty embrace lower recruitment and training costs, higher productivity of workers, customer satisfaction, and the boost to morale of fresh recruits. In order that these benefits are not lost, some companies while downsizing try various gimmicks. Flex leave, for instance, is one. This helps employees receive 20% of their salary, employer provided benefits, while they take a 6 to 12 month sabbatical, with a call option on their services. Others try alternatives like more communication, hand holding, and the like’.

A Company wants you to carry out research to decide its downsizing policy. Use the theoretical information given above and answer the following:

1. State three objectives of research (3 mark)
2. What are different types of variable in theoretical framework? Explain each by taking suitable example. (4 marks)
3. Draw a theoretical framework and label all variables. (3 marks)