

**K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH,**

**Vidyavihar, Mumbai- 400077**

**PGDM (COMM) – II TRIM 2017-19**

**Subject: Business Research-I**

**Maximum Marks: 50**

**Duration: 3hours**

**Date: 05/01/2018**

**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**

Design a small questionnaire (max 10 questions) with the following research objectives:

1. To examine factors that influence brand switching between service providers in the telecom industry of India
2. To understand customer's preferences of mobile service providers in the telecom industry of India
3. To investigate the factors which influence customers to switch service-provider brands
4. To examine the satisfaction level of customers on various qualitative parameters
5. To propose recommendations to service providers for increasing customer loyalty

*Note: Pl. take assumptions wherever necessary.*

**Question 2**

Identify different measurement Scales (Nominal, Ordinal, Interval, Ratio) in each of the question in the given questionnaire and discuss the kind of statistical techniques used in each scale question wise.

Questionnaire on Online Grocery Store

1. Name :-
2. Age :-
3. Occupation :-
4. Income level :-
  - 1 lakh – 3 lakhs
  - 3 lakhs – 6 lakhs
  - 6 lakhs – 9 lakhs
  - 9 lakhs and above
  
5. Where do you tend to buy your groceries from (answer in the total sum of 100%)
  - Online grocery retailer .....
  - Supermarket .....
  - Local grocery store .....
  - Both online and offline.....
  - .....Total (100%)
  
6. How often do you do your grocery shopping online?
  - Weekly
  - Fortnightly
  - Monthly
  - Used only once
  - Only use for special occasion
  
7. How much money do you spend in online shopping monthly?
  - 100 – 500
  - 500 – 1000
  - 1000 – 5000
  - 5000 and above
  
8. Which features in online grocery shopping attracts you?
  - Discounts offered
  - Variety
  - Value for money
  - The design of a website
  - Advertisement
  - Any other(Please specify)
  
9. While shopping what affects your satisfaction the most?

Feature	Very important	Somewhat important	Not important
<b>Design</b>			
User friendly			
Adequate search option			
Product assortments			
<b>Payment options</b>			
Cash on delivery			
Net banking			
Debit/ Credit Cards			
<b>Product Options</b>			
Offers & Discounts			
Free Shipping			
<b>Security</b>			
Id & password			
Order confirmation screen			
<b>Delivery</b>			
Tracking of			

**Q3.1** Suggest an appropriate sampling technique for the below mentioned situations with the appropriate reasoning:

- a) The Director of Human Resources of a manufacturing firm wants to offer stress management seminars to the personnel who experience high levels of stress. He conjectures that three groups are most prone to stress. The workmen who constantly handle dangerous chemicals, the foremen who are held responsible for production quotas, and the counselors, who day in day out, listen to the problems of the employees, initialize them and offer counsel, with no idea of how much they have really helped the clients.

To get a feel for the experienced level of stress, within each of the three groups and the rest of firm, the Director would classify the sample into four distinct categories.

1. The workmen handling the dangerous chemicals.
  2. Foremen
  3. Counselors
  4. All the rest
- b) 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 flextime.

- c) An administrator wants to assess 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.

Q3.2. What are sampling and non-sampling errors? Explain with one example of each?

Q3.3. Name any 3 factors that help in determining sample size of a study?

#### **Question 4**

A sales manager has collected the following data on annual sales and years of experience which gave the below given out put on running regression analysis:

On the basis of regression output answer the following question:

- Is it that Years of experience depends on Annual sales or vice versa?
- Is suitable to run regression analysis? How will you decide?
- Develop an estimated regression equation that can be used to predict annual sales given the years of experience.
- Use the estimated regression equation to predict annual sales for a salesperson with 29 years of experience.

#### **Question 5**

Research has shown that in fast paced world of electronics, the key factor that separates the winners from the losers is actually how slow a firm is in making decisions. The most successful take longer to arrive at strategic decisions on the product development, adopting new technologies, or developing new products. The values (Excel worksheet 5) are the no. of months to arrive at a decision for firms ranked High, Medium, and low in terms of performance.

Apply a suitable statistical analysis to comment on the average months taken by company which eventually is used to measure the performance of company.

#### **Question 6**

Q6.1 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

- Frame hypothesis
- 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?

Q6.2 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.

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