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GUJARAT TECHNOLOGICAL UNIVERSITY MBA PART TIME - SEMESTER-III EXAMINATION - WINTER 2020 Subject Code:4539903 Date: 08/01/2021 Subject Name: Research Methodology (RM) Time:10:30 AM TO 12.30 PM **Total Marks: 47 Instructions:** 1. Attempt any two questions from Q1 to Q4. 2. Q5 & Q6 are compulsory. 3. Make suitable assumptions wherever necessary. 4. Figures to the right indicate full marks. 06 **Q.1a** Explain the following with suitable examples: (a) Abstract (b) Causal Relationship (c) Dependent Variable **Q.1b** Explain the following with suitable examples: 06 (d) Focus Groups (e) Margin of Error (f) Random Sampling **Q.2** (a) What is the necessity of defining a research problem? 06 Briefly explain how to conduct a literature review during a research. **(b)** 06 What are the characteristics and functions of a research report? **Q.3** (a) 06 **(b)** Write a detailed note on types of hypothesis with suitable examples. 06 **Q.4** (a) For the following survey situation, and in the context of the situation described, 06 carefully state the target population, the frame, and the sampling units. Also discuss any possible sources of selection bias or inaccuracy of responses, if "The Saskatchewan Provincial Travel Committee commissioned a study to identify inter-provincial (within Saskatchewan) travel patterns of Regina and Saskatoon residents, and to evaluate different sources of vacation planning information. They conducted 400 interviews with Regina residents and 400 interviews with Saskatoon residents. Telephone numbers with Regina and Sasktoon exchanges were generated randomly so that listed and unlisted telephone numbers could be reached. "Respondents were limited to heads of household and quotas were established in order to have an equal representation of male and female respondents. Additionally, income and age brackets were monitored in order to maintain the same proportions as the general population bases of Regina and Saskatoon." **(b)** Prepare a questionnaire for collecting data on customer preferences w.r.t. 06 luxury cars segment in India. Q.5 Case Study: American Wine, Inc. A researcher for a large wine company, American Wine, Inc., is interested in

estimating the amount of wine consumed per household of the permanent residents in the city of Daytona Beach, Florida, and how consumption is related to family income. An accurate listing of all the households for the Daytona Beach area was unavailable, and the phonebook when published was already somewhat obsolete. Therefore, given the lack of good information from which to work, the researcher decides to develop an area sampling plan.

For area sampling he obviously needs a map embracing the population that is divided into smaller areas and also relevant data about those areas. The researcher knows that the U.S. Census conducts population studies by areas, for which maps and certain data are published in the decennial Census Bureau volumes.

The researcher wanted to see a more detailed description of the area, so he proceeded to develop his sampling plan by obtaining a more detailed map of the area from the block statistics maps. He found that Daytona Beach was divided into 18 census tracts, and from them he then drew a random tract from the map.

- (a) If the total sample size is to be 400 households, what information is needed to enable the drawing of a one-stage area sample?
- (b) Would this one-stage area sample be statistically more efficient than if we chose a simple random sample? Why? Explain.

## OR

The researcher then decided to develop a two-stage area sample plan. He now wants the total sample size to number 1200 in order to increase the precision of his findings. Since he drew tract 812 at random, he decides to use that tract as the first phase for developing the sampling plan. Additional census data on tract 812 indicate that it contained 16 percent of the city's households, which was 4060 households on 116 blocks. (To simplify the problem, the researcher assumed that there were an equal number of households per block.)

- Q.5 (a) How many household should be selected from this tract? (Remember, other tracts will be selected to make up the total sample)
  - (b) Describe how you would first choose a sample of blocks and then choose a sample of households in the blocks selected.

## Q.6 Case Study: Sleepless Nights in Holiday Inn

Just a few years ago, Tom Oliver, the Chief Executive of Holiday Hospitality Corp., was struggling to differentiate among the variety of facilities offered to clients under the Holiday flagship-the Holiday Inn Select designed for business travelers, the Holiday Inn Express used by penny pinchers, and the Crowne Plaza Hotels, the luxurious hotels meant for the big spenders. Oliver felt that revenues could be quadrupled if only clients could differentiate among these.

Keen on developing a viable strategy for Holiday Hospitality, which suffered from brand confusion, Tom Oliver conducted a customer survey of those who had used each type of facility, and found the following. The consumers didn't have a clue as to the differences among three different types. Many complained that the buildings were old and not properly maintained, and the quality ratings of service and other factor were also poor. Furthermore, when word spread that one of contemplated strategies of Oliver was a name change to differentiate the three facilities, irate franchises balked. Their mixed messages did not help consumers to understand the differences, either.

Oliver thought that he first needed to understand how the different classifications would be important to several classes of clients, and then he could market the heck out of them and greatly enhance the revenues. Simultaneously, he recognized that unless the franchise owners fully cooperated with him in all his plans, mere face lifting and improvement of the customer service would not bring added revenues.

- (a) Identify the problem.
  (b) Develop a theoretical framework
  OR
- Q.6 (a) Develop at least four hypotheses(b) What type of research should be envisaged?06

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