Choosing a Sampling Method

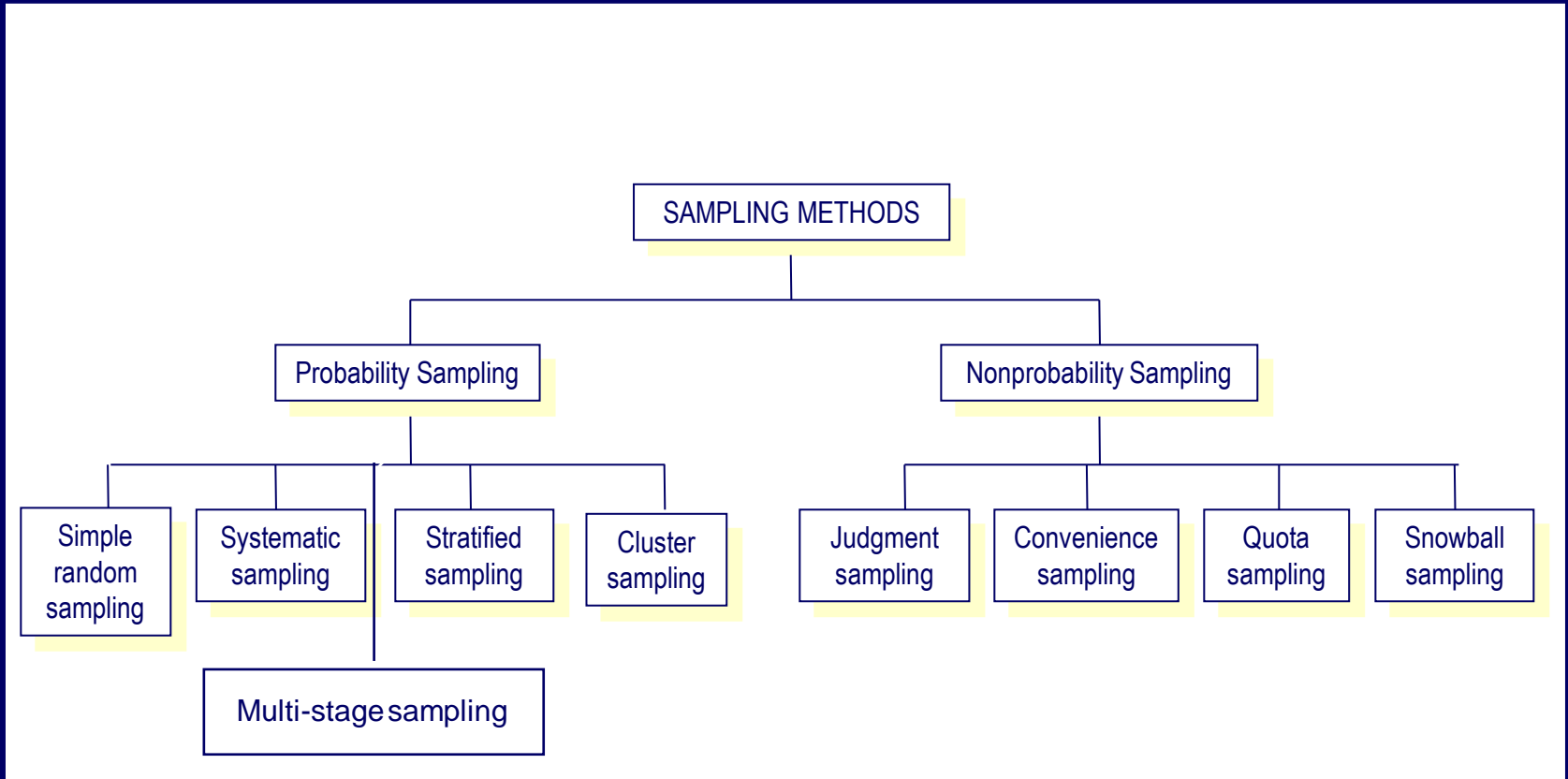1. ***Probability Sample Techniques/Methods*:**

   A subset of the population in which the probability of selection is known and it involves *random selection.*

2. ***Nonprobability Sampling Techniques/Methods*:**

   Any subset of a population in which the probability of obtaining the sample cannot be computed and it does not involve *random selection*.

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Types of Sampling Methods

1.Probabilistic Sampling Methods

□ Every unit in the target population has a known and nonzero chance of being selected.

1. Simple Random Sampling Method:
Each element of the population or each possible sample of the same size from the population has an equal chance of being selected.

Steps in Simple Random Sampling

1. Define the population.
2. Determine the desired sample size.
3. List all the members of the population.
4. Assign each of the individuals on the list a consecutive number from zero to the required number, for example, 00-89, or 000-249.
5. Select an arbitrary number in the table of random numbers. (Close your eyes and point!)
6. For the selected number, look at only the appropriate number of digits. For example, if a population has 90 members, you use the last 2 digits of the number; if a population has 300 members, you use the last 3 digits.
7. If the selected number corresponds to the number assigned to any individual in the population, then that individual is in the sample. For example, if a population has 500 members and the number selected is 375, the individual numbered 375 is in the sample; if a population has only 300 members, then 375 is ignored.
8. Go to the next number in the column and repeat step 7.
9. Repeat step 8 until the desired sample size is reached.

An Example

54463
15389
85941
61149
05219
41417
28357
82341
23452
34343
67234
32741
23421
24980
11245

If you want to select 500 samples/subjects out of 5,000 students, …

- The population is all 5,000 first year students in a university.
- The desired sample size is 10% of the 5,000 students, or 500 students.
- The researcher has a computer printout of all the students.
- Using the printout, the researcher can assign each student a number from 0,000 to 4,999.
- The researcher uses a table of random numbers at an arbitrarily selected number such as the one on your left hand side.

- Since the population has 5,000 members, we are concerned with only the last four digits of the underlined number, 4463.
- There is a student assigned the number 4463 so that student is in the sample.
- The next number in the column is 15389. The last four digits are 5389. Since there are only 5,000 students, there is no student assigned the number 5389. Therefore, number 5389 is skipped.
- Applying the above steps to the remaining numbers shown in the column, we include the students numbered 1149 and 1417 until we have selected 500 students.[31]

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