

Introduction

The statistical tests are used for the analysis of the population data to make any generalized analysis report based on the population data. The hypothesis and possibility of reasons are the two considerations taken under consideration when performing a statistical test. The variations, which alters the hypothetical testing, are the parametric test and non-parametric test.

The parametric test is performed when the data about the population is available and the other one is performed when the data about the population is not present. Usually the parametric tests and the non-parametric tests are defined as follows.

“Parametric test is a statistical test, in which specific assumptions are made about the population parameters”

When producing the mean of the population the parametric test is the hypothesis, which is used for making the generalized stating.

“Non-parametric test is a statistical test used in the case of non-metric independent variables”

The test carried out without depending on the underlying assumptions are known as the non-parametric test.

Reference:

Key Differences. 2019. Difference Between Parametric and Nonparametric Test (with Comparison Chart) - Key Differences. [ONLINE] Available at: <https://keydifferences.com/difference-between-parametric-and-nonparametric-test.html>. [Accessed 24 May 2019].

What are the main differences between the parametric test and the non-parametric test?

The tests, which are done when the specific assumptions are underlying, is known as the parametric test while the non-parametric test depends on the non-metric variables. When considering about the parametric test the primary test statistics is depending on the distribution. The non-parametric test, which is a statistical test, is an arbitrary one in its case.

The assumption related to the parametric test regarding the measurement of variables is that the tests are done based on the ratio level or the interval. However, in the case of the non-parametric test the measurement regarding the variables are done depending on the factors of nominal or ordinal scale.

On the other hand, the central tendency measure for the parametric test is based on the mean of the data provides while the central tendency of the non-parametric tests is based on the median of the data available. The details regarding the population distribution is available for the parametric test while the non-parametric tests does not consists of any population data exactly.

Parametric tests are usually used in the calculations using the variables only while the non-parametric test has the advantage of applying the test for both the variables and the attributes. There are certain instances when the degree of the correlation or the association between two variables has to be analysed. At this instance, the Pearson's coefficient of correlation is used for the parametric test. In the case of the non-parametric test, Spearman's rank correlation is the theory used for the analysis of the association between the two variables.

Conclusion

It is not that much easy to choose the method either parametric test or the non-parametric tests by the conduction of statistical analysing method for the data. For the hypothetic testing relating to the data, if the data provided consists of all the information regarding the population distribution then the method is parametric test, and when the absence of the exact population data is present then the non-parametric test is the best way to perform the hypothetic testing.

References

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