## IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 1, August 2023

## Use of Probability in Statistics: A Study

Prof. Kute Babasaheb Gopalrao<sup>1</sup>, Prof. Asane Bharat Baban<sup>2</sup>, Prof. Miss. Dhere Renuka Ashok<sup>3</sup>

Sr. Lecturer, Department of Science<sup>1</sup>

Lecturer, Department of Science<sup>2,3</sup>

Amrutvahini Polytechnic, Sangamner, A. Nagar, Maharashtra, India

kutebabasaheb70@gmail.com<sup>1</sup>, sasane.bharat.81@gmail.com<sup>2</sup>, kadlagrenuka4@gmail.com<sup>2</sup>

**Abstract:** Probability is commonly used by data scientists to model situations where experiments conducted during similar circumstances, yield different results. Probability allows data scientists to assess the certainty of outcomes of a particular study or experiment. An experiment is a planned study that is executed under controlled conditions. When a result is not already predetermined, the experiment isreferred to as a chance experiment. Conducting a coin toss twice is an example of a chance experiment. Today's data scientists need to have an understanding of the foundational concepts of probability theory including key concepts involving probability distribution, statistical significance, hypothesis testing and regression.

Keywords: Probability, Concepts, Interpreting and Rules.

## REFERENCES

- [1]. Boole, G. 1854. An investigation of the laws of thought, Dover: Macmillan. Reprinted 1958 Carnap, R. 1952. The continuum of inductive methods, University of Chicago Press.
- [2]. Jaynes, E. T. 1957a,b. Information theory and statistical mechanics. I and II. Physical Review, 106: 20–630. 108, 171–90
- [3]. Jeffreys, H. 1939. Theory of probability, Oxford University Press. (Later editions: 1948, 1961, 1983.)
- [4]. Kallenberg, O. (2005) Probabilistic Symmetries and Invariance Principles. Springer -Verlag, New York. 510 pp. ISBN 0-387-25115-4
- [5]. Kallenberg, O. (2002) Foundations of Modern Probability, 2nd ed. Springer Series in Statistics. 650 pp. ISBN 0-387-95313-2
- [6]. Olofsson, Peter (2005) Probability, Statistics, and Stochastic Processes, Wiley-Interscience. 504 pp ISBN 0-471- 67969-0
- [7]. Kallenberg, O. (2005) Probabilistic Symmetries and Invariance Principles. Springer -Verlag, New York. 510 pp. ISBN 0-387-25115-4
- [8]. Kallenberg, O. (2002) Foundations of Modern Probability, 2nd ed. Springer Series in Statistics. 650 pp. ISBN 0-387-95313-2
- [9]. Olofsson, Peter (2005) Probability, Statistics, and Stochastic Processes, Wiley-Interscience. 504 pp ISBN 0-471- 67969-0
- [10]. Tribus, M. 1996. "The meaning of the word 'probability". In Maximum entropy and Bayesian methods, Edited by: Skilling, J. and Sibisi, S. 143–55. Kluwer Academic.
- [11]. https://en.m.wikipedia.org/wiki/Probability
- [12]. https://study.com/academy/lesson/what-is-probability-in-math-definition-lesson-quiz.html http://googleweblight.com/i?u=http://www.mathworksheetscenter.com/mathtips/calculatingprobability.html &grqid=sxSUnqah&hl=en-IN
- [13]. http://www.corestandards.org/Math/Content/HSS/introduction/
- [14]. https://bookdown.org/jgscott/DSGI/probability-models.html

DOI: 10.48175/IJARSCT-12441



257