

Summary

- ♦ Prasanta Chandra Mahalanobis was an Indian scientist and applied statistician. He is best remembered for the Mahalanobis distance, a statistical measure. He made pioneering studies in anthropometry in India. He contributed to the design of large-scale sample surveys. He was the chief architect of the post-independence statistical system in India.
- ♦ Mahalanobis belonged to a family of Bengali landed gentry who lived in Bikrampur (now in Bangladesh). His grandfather Gurucharan (1833–1916) moved to Calcutta in 1854 and built up a business. Gurucharan was actively involved in social movements such as the Brahmo Samaj, acting as its Treasurer and President. His house on 210 Cornwallis Street was the centre of the Brahmo Samaj.
- ♦ According to C R Rao, *“the fame of Mahalanobis as a scientist will rest largely on his contributions to statistics. He viewed Statistics, or more generally collection and processing of information, as essential in seeking truth”*.
- ♦ Mahalanobis introduced several innovative ideas and methodologies in what he called as ‘experiments in statistical sampling’. He mainly dealt with the problems of organization which arise when a sample survey has to be carried out on a very large scale.
- ♦ Mahalanobis in collaboration with D B Lahiri of the NSS presented a detailed analysis of errors in censuses and surveys in the Indian context. The technique of Inter Penetrating Network of Subsamples (IPNS) developed by Mahalanobis during the 30’s, consists in drawing the sample in the form of two or more sub-samples, selected according to the same sampling scheme so that each subsample provides a valid estimate of the parameter of interest.
- ♦ The three notable contributions to sample survey methodology by Mahalanobis, namely ‘pilot surveys, concept of optimum survey design, and inter penetrating network of subsamples (IPNS)’ had a great impact on the present day sampling techniques in particular and statistical methods in general.
- ♦ Mahalanobis believed that the ultimate analysis of statistics has one single aim: ‘to improve the efficiency of action programmes for the welfare of humanity’. In 1971, he observed: *“The use of sample surveys is spreading rapidly in underdeveloped countries”*.