

ABSTRACT

ASTRID ALFIRA, 3125121985. Hybrid Mutual Clustering Analysis Using Square Euclidean Distance. Thesis. Faculty of Mathematics and Natural Science Jakarta State University. 2017.

Cluster analysis is use to agglomerate objects based on similarity measure, which the based concept of cluster analysis is distance and similarity measuring. Objects agglomeration inside the analysis cluster can be done with bottom-up method, top-down method, and Hybrid Mutual Clustering. Objects agglomeration with bottom-up using clustering method which start from a little cluster to a bigger cluster, objects agglomeration with top-down using the opposite method which start from breaking a big cluster to a smaller cluster. Hybrid Mutual Clustering method introduced on 2006 by Hugh Chipman and Robert Tibshirani, this method is combining the advantages of bottom-up and top-down method. Hybrid Mutual Clustering method in this thesis is using Square Euclidean distance as a method of calculation the distance of an object to other objects. Best cluster is chosen by proportion value on variable and characteristic differences between variable. In this thesis the biggest proportion gets from age under 14 variable at Nusa Tenggara Barat and Papua city.

Keywords : *Cluster, Hybrid Mutual Clustering, Bottom-Up, Top-Down, Square Euclidean distance.*