

## Abstract

Clustering news document is necessary to carry out information become an important knowledge. One of method that can be used for news document clustering is *Fuzzy Hierarchical Agglomerative Clustering* (FHAC). FHAC have ability to find, analyze, and merge data area fast. Accompanying fuzzy evaluation function, *FHAC* can find the most optimum scheme. Quality of cluster depend on the value of some parameter input,  $A$  (threshold for merging clusters) and  $K$  (number of neighbour). Data with a small dissimilarity/small distance/few label will be more appropriate using big  $K$  compared with the small ones, and vice versa data with a big dissimilarity/big distance/many label using small  $K$ . Every cluster that has been created will be labeled by the most representatif label that can be identified the most dominant label on the clusters. The qualiaty of cluster and accuracy of labelling cluster measured by silhouette coefficient and precision.

**Keywords : Clustering, FHAC, Labelling, Silhouette Coefficient, Precision**