ABSTRACT

Twitter is one of the popular social media in the public, eventough Twitter can only tweet and send messages up to 140 characters. Patterns of the interaction or relationship on Twitter between the user is *following/followed*, retweet, *reply*, and *mention*. Social network analysis is used to determine the pattern of interaction, information dissemination, see how important information and the user influence on a social networking site. The *dataset* is created by collecting data on Twitter using tools NodeXL. The *dataset* will pass the *preprocessing* so it will produces a directed and weighted *nxn* matrix. The matrix will be represented into a graph. *Tseng's* approach will be implemented on the clique partitioning algorithm, that will produce formed clique trending graphs and weighted. Graphs clique then transformed into a matrix *nxn* directed and weighted. In the next phase, the calculation of hubs and authority centrality will generate a ranking node/user. Next, go into the calculation of hubs and authority centrality which will produce a ranking user. After completion of the calculation of centrality, will be designing the model and pass the test scenario, by adding weights. In this research, produce user-friendly popular / influential in a network, especially on the social network Twitter. Centrality value obtained from each user vary. There are differences in the value range 0.65 up to 0.67, and the factors affecting changes in the value of centrality and user ranking factor is the weight value relationships indegree and outdegree a balance between the user and the amount of weight relations eigenvalue owned by a user.

Keywords: *Social Network Analysis***,** *Clique partitioning***,** *Tseng's Algorithm***,** *Hubs and authority centrality.*