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Social Network Analysis 10-27-2022

Assignment 6



Total number of cliques: 32

Largest clique:

1. CliqueId: CL\_32
2. Size: 6
3. Executives: E3, E4, E6, E7, E11, E21
5. # clusters: 2
6. Membership: With 2 clusters, only E38 is in one cluster, and everyone else is in the other

1 2

1 0.14864865 0.08108108

2 0.08108108 NaN



B–D: (3+3+3+2+2+1)/2 = 7

C–D: (3+3+3+2+2+1)/2 = 7

E–D: (4+4)/1 = 8

The edge with the greatest betweenness is E–D.



**Membership:**

$`1`

[1] "E1" "E8" "E9" "E10" "E13" "E16" "E20" "E24" "E25" "E26" "E29" "E31" "E32" "E34" "E35" "E38"

$`2`

[1] "E2" "E3" "E4" "E6" "E7" "E11" "E14" "E15" "E19" "E21" "E22" "E27" "E28"

$`3`

[1] "E5" "E12" "E23" "E30" "E33" "E36" "E37"

$`4`

[1] "E17" "E18"

**Modularity:** 0.48

**Density:**

Graphical user interface, text, application, chat or text message

Description automatically generated



We see that for office, cluster 4 is only in office 1 while clusters one and two are more scattered. For projects, people in cluster 3 have completed more projects on average. For seniority, cluster 1 has the highest number of senior people while cluster 3 has the highest percentage of senior people.

Calendar

Description automatically generated

Text

Description automatically generated