

Financial Network Approach and Formal Reasoning about Company Bankruptcy: A Case Study on PT Sariwangi AEA

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We construct a financial network that models the complex system representing the bankruptcy effect of a company. In particular, we study the influence of PT Sariwangi AEA and Indorub bankruptcy, which affects at least three banks and four other companies directly. We present the interconnectivity of the banks and other corporations regarding the ownerships and liabilities using graphs. From these resulting graphs, we use techniques in network science to provide several important measurements and statistics, such as the centrality of each network. We successfully constructed a financial network surrounding PT Sariwangi AEA and Indorub. Centrality measures obtained from the graph shows that Rabobank, BCA, Rabobank UA, ICBC, and Interbank are the most important and influential entities in the financial network.

Keywords— financial network, network science, PT Sariwangi AEA
