

## ABSTRACT

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*This research aims to determine the Profitability Ratio using the Net Profit Margin (NPM), Earning Per Share (EPS) and Return of Investment (ROI) methods in Animal Feed Companies listed on the Indonesia Stock Exchange until 2022 partially and simultaneously. Using the DBSCAN (Density-Based Spatial Clustering of Applications with Noise) clustering method, this study investigates the profitability ratios of animal feed companies in Indonesia during the COVID-19 pandemic. The data used in this study comes from the financial statements of companies listed on the Indonesia Stock Exchange (IDX) and includes profitability ratios such as Net Profit Margin (NPM), Earning Per Share (EPS), and Return on Investment (ROI). The analysis methods used include data normalization and evaluation of clustering results using metrics such as Silhouette Index, Dunn Index, Calinski-Harabasz Index, and Davies-Bouldin Index. This study successfully identified cluster values that describe the characteristics of animal feed companies in Indonesia during the pandemic, where cluster 0 is a company belonging to a cluster with high and good profitability, there are 6 companies belonging to cluster 0, namely (CPIN.JK, JPFA.JK, MAIN.JK, SIPD.JK, WMUU.JK, WMPP.JK), and cluster -1 (Noise) shows companies that are in clusters with low profitability, there are 2 companies belonging to cluster -1, namely (CPRO.JK, DPUM.JK).*

*Keywords: Profitability Ratio, Net Profit Margin, Earning Per Share, Return of Investment, Data Mining Clustering*