

ABSTRACT

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Title : Perbandingan Algoritma K-Means dan K-Medoids
Dalam Penclusteraan Data Penjualan PT. United
Teknologi Integrasi

Recording sales transactions in a company is a very important thing to do. By recording sales transactions every day the company can find out the increase in the level of sales of goods. Sales transaction data contains data on goods that have been sold, the number of goods, the name of goods, the price of goods, and the name of customers who make purchases of goods. This sales data can be utilized to help the company in increasing the company's sales. This research utilizes data mining techniques that cluster data with K-Means and K-Medoids algorithms on sales data. This study conducted clustering sales data, data taken starting from 2018 - 2020 at PT United Teknologi Integrasi. Data were taken from 2018 because the recording system implemented in this company began to be used in 2018. The determination of clustering is determined using the elbow method that shows the most optimal cluster results formed are as many as three clusters, namely products that sell best-selling, best-selling, and less in-demand. These results are used to provide more promotion to existing products in the cluster less in demand to be able to increase sales. Then a comparison of the results of clustering algorithms with cluster quality tests using the Silhouette Index method which produces a maximum index value of 0.404 on the K-Means algorithm while 0.376 on the K-Medoids algorithm. The results of this study concluded that the K-Means Algorithm has better quality in forming clusters. This research is expected to be a consideration of which algorithm is most appropriate to be applied in the processing of sales data and the results of clustering data processing can be utilized to determine sales strategies.

Key words:

k-medoids algorithm, k-means algorithm, data mining, clustering, sales data

KATA PENGANTAR

Puji syukur kita panjatkan kepada Tuhan Yang Maha Esa karena atas rahmatnya penulis dapat menyelesaikan tugas akhir ini dengan baik. Tugas akhir ini ditujukan untuk memenuhi salah satu syarat kelulusan program Sarjana di Jurusan Teknik Informatika Universitas Mercubuana Jakarta.

Penulis menyadari bahwa tanpa bantuan dan bimbingan dari semua orang akan sangat sulit untuk menyelesaikan tugas akhir ini. Oleh karena itu, penulis mengucapkan terima kasih kepada:

1. Bapak Ir. Emil R. Kaburuan, Ph.D., IPM., selaku kepala program studi teknik informatika Universitas Mercu Buana;
2. Bapak Wawan Gunawan S.Kom, MT, selaku dosen pembimbing yang telah membimbing selama penyusunan tugas akhir ini;
3. Ibu Umni Salamah, S.T., MMSI, selaku dosen pembimbing akademik yang telah banyak membantu saya dalam urusan akademik;
4. Orang Tua, saudara, dan sahabat yang selalu membantu ketika menghadapi kesulitan;
5. Serta semua pihak yang terlibat dan tidak dapat di sebutkan satu persatu semoga Tuhan membalas kebaikannya.

Akhir kata, penulis berharap tugas akhir ini dapat bermanfaat bagi penulis sendiri dan pembaca. Penulis menyadari masih banyak kekurangan dalam tugas akhir ini.

Jakarta, 26 Januari 2021
Penulis

