ABSTRACT

The increasing demand for Internet and digital services in Indonesia drives Telkomsel to continuously expand its market, one of which is through the product Indihome, a digital solution that provides Internet, home telephone, and interactive TV/IPTV services targeting the household segment. To achieve this goal, special attention is required to penetrate new customers through new sales activities. However, sales performance in the second half of 2023, after Indihome officially operated under Telkomsel, showed unsatisfactory figures as it never reached the sales target, averaging only 75.5% of the target. A digital marketing penetration approach is expected to be a solution to improve Indihome's sales performance. According to previous studies and literature, the definition of digital marketing has shifted from a narrow understanding of sales activities using digital media to a broader interpretation that encompasses all uses of digital technology in marketing activities. One widely utilized application of digital technology is the implementation of big data analytics, which will be applied in this study to address the challenges posed by the current phenomenon.

This study aims to analyze a model to provide product recommendations (types of products) at each Indihome sales location based on big data analytics by utilizing Telkomsel's internal data resources. This research employs a mixed-method approach, combining clustering and classification methods. The clustering method is used for geographical segmentation, while the results of each geographical segment cluster serve as input for the second method, which is classification, known as sales forecasting. Subsequently, performance analysis is conducted by measuring the accuracy and precision levels of each model combination. The best model is the combination of clustering and classification models that, on average, provide the best accuracy and precision levels across all clusters

Keywords : Marketing, digital marketing, big data analytics, clustering, classification.