

## ABSTRACT

*The development of Indonesia ICT environment with widely deployed high speed mobile broadband access has made mobile video-on-demand (VoD) platform as one of people lifestyle nowadays. Video streaming has become one of the most popular application besides social media. Vidio, Netflix, Disney+Hotstar, Viu, HBO Go, Maxstream, iflix and GoPlay are some of popular subscribed video on demand platform in Indonesia. Following smartphone technology development, mobile phone subscriber able to enjoy high resolution Mobile VoD service with greater user experience. Research object will be taken from mobile cellular subscriber on 6 major cities in Indonesia with data service access, where customer behavior in accessing data is studied and modelled to determine potential user for Netflix marketing target.*

*The purpose of this study is to output significant variables influence a person to subscribe on Netflix by using machine learning predictive analytics on customer profile and behaviour. Feature importance analysis will give marketing insight for product offering follows up to each potential customer. Clustering is conducted before by using K-Means model to divide subscribers into 3 groups and Few models are tested and evaluated right after by comparing confusion matrix result to choose best model for predicting potential buyers to customers who actually do not buy. Data collection method is collected from customer historical activity between September-December 2019 involving more than 10 million subscribers.*

*Based on modelling result, it can be seen which significant variables are affecting Netflix buyer and non buyer. Besides that, with clustering method, 3 cluster has been formed with separation of heavy, medium and low data consumption. "Vidio", "Jd.id" and "Freefire" are apps that frequently accessed by heavy data users cluster. Where in general it is found that potential user are accessed E-Commerce application such as "Shopee", "Tokopedia" and "Jd.id" in frequent*

*Based on the research results, this research method can be used by mobile operator as a method to target potential customer with effective promotional or product offering by personalized marketing approach based on behavioral pattern and customer needs. It is expected by implementing this methodology, effectivity and accuracy of marketing will be increased compared to conventional method.*

**Keywords:** *Predictive Analytics, Personalized Marketing, Mobile Video-on-demand*