ABSTRACT

"Application and Game Developer" is a sub-sector of the creative economy that is currently growing fast and showing massive business potential globally. Within the industry, indie (independent) developers exist, and they have very limited resources. So, these developers are really dependent on digital video game distribution services to sell their products. Currently, the biggest digital video game distribution platform is Steam, which features online product reviews. These online reviews can be used by video game developers as references for better developing their video games.

Online product reviews commonly comes in big number and variety, so it impose a challenge for indie video game developers to read and analyze them manually. In that matter, this research intends to apply an analytical method based on machine learning to extract important information from indie video game reviews on Steam automatically.

The method applied in this research is sentiment analysis with Naïve Bayes Classifier algorithm and LDA-based topic modeling on reviews that are collected through text mining method.

This research concludes that positive sentiment is dominant across the reviews by 69.8%, with the algorithm's accuracy as much as 75.45% alongside Kappa value of 0.454. The reviews that are processed shows dominant topics that includes most used words such as "story", "character", "music", and "art" which are believed to be video game aspects that affect the player's sentiment.

Future studies are suggested to improve ther quality data preparation and pre-processing the data to be used, and applying machine learning algorithms that are capable to classify complex online review texts to acquire higher classification accuracy and better analysis.

Keywords: *sentiment analysis, topic model, video game, machine learning, big data, purchase decision*