**CONCLUSION**

This work proposed a prediction methodology thatfocuses more in assessing the selected data using EDA techniques in an effort to use more proper models, and also to enhance their practicality by introducing new reward loss function during training. The objective of this work was met by defining and testing two hypotheses related to EDA and introducing new reward loss function. The results of the tests strongly supported the first hypothesis as it was seen that the complexity in the data could not be captured properly with simple models such as NBC, rather they were better represented by ANN and RF in terms of classification accuracy. In proceeding with testing the second hypothesis, a new loss function that maximizes the returns was implemented to retrain the ANN. The subsequent testing results of profits generation showed that this loss superiorly outperformed conventional losses of predictive models such as the wellknown cross-entropy. The results ofthis work suggest that there should be larger focus on EDA and more practical losses in the research of machine learning modelling for trading applications. Our ongoing work is addressing issues related to the use of more advanced EDA techniques related to sequential data analysis to deeply examine if they could achieve better results. Moreover, the decision-making process (trading strategy) is also being examined for potential enhancement through having amodel that can predict more than one time step ahead. A regression ANN model with multi-step ahead prediction combined with the reward loss introduced in this work is expected to result in superior performance in terms of profits generation.