

Title: Modelling continuous intention to use generative artificial intelligence as an educational tool among university students: findings from PLS-SEM and ANN

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Abstract: The current study explores continuous intention (CI) to use generative artificial intelligence (GenAI) as an educational tool among university students through the prism of a post-pandemic theoretical framework. Despite GenAI technology's latest launch in the academia sector, very little has been done to evaluate its effects. To examine what factors impact the continuous intention to use GenAI, this paper contemplates incorporating the technology acceptance model with self-determination theory. University students were requested to fill out questionnaire forms that were designed to gather data for the proposed model. A hybrid approach combining a linear partial least squares structural equation modeling model with compensation and a non-linear artificial neural network (ANN) model without compensation is used to investigate the effect of CI on the use of GenAI as an educational tool. The empirical results indicated that perceived usefulness and autonomy are significant predictors of the continued intention to use GenAI in the Thai context. However, the CI was unaffected by perceived ease of use. Additionally, the ANN model indicates that relatedness is the most important predictor. Overall, theoretical and practical ramifications are addressed.

Keywords: Continuous intention, Generative Artificial, Intelligence, Technology acceptance model, Self-determination theory, Higher education, Neural network PLS-SEM ANN

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