ESTIMATION OF TECHNOLOGY ACCEPTANCE MODEL (TAM) ON THE ADOPTION OF TECHNOLOGY IN THE LEARNING PROCESS USING STRUCTURAL EQUATION MODELING (SEM) WITH BAYESIAN APPROACH

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ABSTRACT

Employing computers for supporting the learning technology becomes very important in every classroom learning activity. In fact, the use of computers technology in classroom, however, is often ignored and very rare. Therefore, it is necessary to do a research on teachers’ perception of acceptance in the use of computers technology in their teaching and learning process inside classroom. The most appropriate method to measure the level of acceptance to this technology adoption is Technology Acceptance Model (TAM). This method is structured as a hierarchical structure and the analysis requires an appropriate statistical analysis tools, namely Structural Equation Modeling (SEM). There are some assumptions which must be fulfilled in the SEM analysis, including large sample size, linear relationship between latent variables, and all of the observed value must be multivariate normally distributed. These requirements are frequently cannot match with the conditions in the real world and, therefore, SEM would not be applicable. This research was conducted to only 30 teachers on SMP Brawijaya Smart School Malang by employing Bayesian SEM which is proposed to overcome the restriction to fulfill the SEM requirement. The results show that technology acceptance during the learning process in this school are influenced by Perceived Ease of Use (PE) and Perceived Usefulness (PU) which are dominated significantly by Subjective Norm, Innovativeness, Training, Experience and Facilitating Conditions.

Keywords: Technology Acceptance Model (TAM), Structural Equation Modeling (SEM), Bayesian SEM, Learning Process Technology.
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