

UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

**FACTORS INFLUENCING MALAYSIA UNIVERSITY STUDENTS'
PERCEPTIONS OF ARTIFICIAL INTELLIGENCE ADOPTION IN
MATHEMATICS DISCIPLINES**

**HAFIZUL ASYRAF BIN ABD MALIK(2022780327) NURFARAHANIM BINTI
AZMI (2022937843) SARAH AQILAH BINTI TAJUL ARIFIN (2022745935)**

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ABSTRACT

The incorporation of artificial intelligence (AI) in mathematics teaching is gaining popularity. This study underlines the potential benefits of AI in mathematics teaching but raises problems about how students perceive and use AI tools in their learning. We might have concerns about issues such as a lack of comprehension, reliance on technology, and a loss in human interaction. Many students lack sufficient exposure to AI technology in their educational environment, resulting in limited experience in utilizing AI. Hence, the purpose of this study is to explore perception of students on adopting AI in mathematics disciplines. We will examine how does PE (PE), SI (SI), and EE (EE) influence Students' Perception (SP). A quantitative study with 106 student participants will gauge perceptions of AI in math education using a 5-point Likert-scale survey. It will focus on performance expectation, SI, and effort expectation as variables from the UTAUT model. Data will be collected through an online survey distributed to UiTM mathematics students, and SmartPLS will be used for analysis, including mean identification, reliability analysis with Cronbach Alpha, and correlation analysis to assess variable associations. According to the findings, students' perceptions of AI technologies have a major impact on their academic achievement and overall learning experiences. While AI has significant benefits, it also has drawbacks, such as knowledge gaps and reliance on technology. The report emphasises the potential benefits of AI integration, such as improved performance and learning experiences, while also recognising the obstacles of AI adoption. Finally, our research advises educators and AI developers on how to optimise AI integration, paving the way for a future in which AI alters mathematical teaching.