

A Conceptual Exploration of ChatGPT Acceptance as an Educational Support Tool: A Case Study of Baba-Ahmed University

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Abstract

This conceptual paper investigates the theoretical underpinnings influencing students' acceptance of ChatGPT as an academic support tool. Drawing from the Technology Acceptance Model (TAM) and the DeLone and McLean Information Systems Success Model, it identifies core constructs including Perceived Ease of Use (PEOU), System Quality, Content Quality, and Service Quality. The aim is to propose a conceptual framework tailored to the Nigerian university context that predicts student behavioral intention to use ChatGPT. The paper synthesizes relevant literature to propose a model that highlights potential barriers and enablers of adoption and provides a foundation for empirical research (Davis, 1989; DeLone & McLean, 2003).

Keywords:

ChatGPT acceptance, AI in higher education, Technology Acceptance Model (TAM), DeLone & McLean IS Success Model, Infrastructural barriers in education.

Introduction

Artificial Intelligence (AI) is increasingly shaping educational practices, with ChatGPT emerging as a prominent AI-powered support tool. However, student adoption is not guaranteed. Factors like usability, content relevance, system responsiveness, and support quality influence acceptance (Zhou, 2012; Venkatesh & Davis, 2000). This paper conceptualizes these factors to understand potential barriers and enablers of ChatGPT adoption among undergraduates at Baba-Ahmed University. It addresses the need for contextualized frameworks that account for local infrastructural, cultural, and educational dynamics within Nigeria's higher education system (Oye et al., 2012).

Literature Review

The Technology Acceptance Model (TAM) explains how user perceptions such as PEOU and Perceived Usefulness influence technology adoption (Davis, 1989). The DeLone and McLean model contributes dimensions like System Quality, Content Quality, and Service Quality to understand information system success (DeLone & McLean, 2003). Prior studies suggest these constructs are key determinants of user behavior regarding educational technologies (Lee et al., 2003). In the African context, infrastructural, cultural, and digital literacy factors necessitate contextual adaptation of these frameworks (Olatokun & Kebonye, 2010). Literature also indicates the importance of trust in AI systems, digital confidence, and students' prior experiences with technology, which may moderate acceptance (Gefen et al., 2003).

Research Methodology

As a conceptual study, this paper does not employ empirical methods. Instead, it synthesizes existing literature to build a theoretical model. Constructs are defined and their interrelations hypothesized based on established models. A proposed framework is developed for future empirical testing, with testable hypotheses that link quality constructs to behavioral intention and evaluate PEOU's moderating effect (Venkatesh et al., 2003).

Conceptual Framework

The model below illustrates the hypothesized relationships among the key constructs.

Future researchers should empirically test this model in Nigerian institutions to validate these assumptions and further tailor AI interventions for local learning environments.

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