Chapter 10
The Role of AI and Financial Stress in Enhancing Access and Equity in Transnational Higher Education:
A Case Study in the UK

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ABSTRACT

Artificial intelligence (AI) contributes significantly to improving access and fairness in transnational higher education (TNE) by employing technology to solve a variety of obstacles and possibilities. The chapter discusses about the use of AI based technologies and role of financial stress on the TNE through an extensive Case Study on the UK, largest degrees awarding country based on TNE. Using the Cross-Quantilogram (CQ) and Wavelet Local Multiple Correlation (WLMC) approaches on a dataset ranging 2013-2023 the chapter divulges that in the long-term AI use enhance TNE in the UK. While increased global financial stress can hamper the TNE in the long-term. Although, the associations varies across both quantiles and frequencies over time for UK. However, important way forward for stakeholders are suggested based on the findings of the case study.

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1. INTRODUCTION

1.1 Background

With the right application, artificial intelligence (AI) can revolutionize teaching and learning methodologies, tackle some of the most pressing issues facing education today, and hasten the achievement of SDG 4. Though policy discussions and regulatory frameworks have not yet kept up with the numerous dangers and difficulties that come with fast technology advancements. The way we educate is always being shaped by new technology. It is anticipated that higher education institutions would significantly increase their use of Artificial Intelligence Educational technologies (AIEdTec), which are projected to revolutionize educational practices (Hwang et al., 2020). While there will be obstacles to overcome, including issues with cost and scalability as well as worries about data privacy, the use of AIEdTec also offers higher educations the chance to improve their operational and instructional procedures (Zhang & Aslan, 2021). In order to accomplish the goals of the Education 2030 Agenda, UNESCO is dedicated to helping Member States fully utilize AI technology, as long as they adhere to the fundamental values of fairness and inclusivity in applying this technology to educational settings (UNESCO, 2023). A human-centered approach to AI is mandated by UNESCO's mission. In addition to making sure AI doesn't further technical gaps inside and across nations, it seeks to change the debate to address present disparities in access to information, research, and the diversity of cultural expressions. The adoption of AI technologies as a tool to augment or enhance learning experiences has seen a significant surge over the past decade. This trend has further accelerated in the wake of school closures due to the COVID-19 pandemic. However, despite this growth, there remains a scarcity of information regarding the effectiveness of AI in improving learning outcomes and its ability to aid learning scientists and practitioners in understanding the dynamics of effective learning. Moreover, the capacity of AI to monitor learning outcomes in diverse scenarios and assess skills—especially those acquired in informal and non-formal settings—has yet to be fully explored (Miao et al., 2021).

However, Transnational Higher Education (TNE) refers to the practice of higher education providers and programs crossing international borders to offer degrees and programs to students in their home or neighboring country, as opposed to students traveling to the foreign higher education institution or provider's country to complete their entire academic program (Transnational Education (TNE) Report, 2018). According to Diego (2024), 10% of college and high school students who participated in a recent poll reported using both ChatGPT and traditional tutoring techniques. Remarkably, 90% of the participants said they would rather use AI-driven learning than conventional human teachers. AI has also taken the place of tutoring sessions for a large number of students; 95% of them credit AI-driven tutoring for their subsequent academic progress. In particular, for children in underprivileged and rural places, AI-powered technologies have the potential to increase access to high-quality educational opportunities. Adaptive learning systems powered by AI enable education to be customized to meet the individual requirements and learning preferences of every student. Regardless of their background, all children will receive the help they need to succeed academically because to this customisation. AI can improve learning outcomes while also streamlining administrative duties like assignment grading and producing tailored feedback. Teachers may spend more time and energy providing individualized education and assistance to each student by automating these processes. Large class sizes and a lack of educational resources are major difficulties in developing nations, where this is especially helpful.