Chapter 7
Revealing the Post-Pandemic Prescriptive Technology Deployment of the Raspberry Pi-Powered Learning Management System Based on Augmented Theory

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ABSTRACT

This study investigates the technology adoption of raspberry pi-powered learning management system (RPP-LMS) in the post-pandemic educational landscape. Extending the UTAUT2 model, the authors integrate institutional adoption and academic support from the model of distance education. The findings from analyzing 302 distance education participants reveal significant relationships between various constructs, including performance expectancy, effort expectancy, habit,

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and academic support, and their impact on adopting RPP-LMS. Notably, Habit emerges as a critical determinant, significantly influencing use behavior. Moreover, this study explains the moderating effects of age and gender on these relationships, providing valuable insights into demographic disparities in technology adoption. The authors propose a tailored technology deployment plan that offers practical strategies for educators, administrators, and policymakers to optimize distance learning experiences and promote the effective integration of technology in the aftermath of global disruptions.

INTRODUCTION

The COVID-19 pandemic has significantly affected education, leading to a rapid adoption of technology to facilitate learning during and after the crisis. Various studies have highlighted the importance of technology in education post-pandemic. For instance, Raza et al. (2020) discuss how social isolation during the pandemic has necessitated the acceptance and utilization of Learning Management Systems (LMS) to ensure continuity in education. Similarly, Goh & Sandars (2020) emphasize the inevitability of increased awareness and acceptance of technology in medical education post-pandemic to enhance teaching and learning.

Reyes-Mercado et al. (2022) further elaborate on the accelerated adoption of digital learning environments (DLEs) during the pandemic, emphasizing the importance of understanding the drivers behind this adoption for the future of business education. Additionally, Khong et al. (2022) highlight the rapid digitalization in education due to the pandemic, requiring educators to integrate various technologies for online teaching. Moreover, studies like Modise & Berg (2021) and Maphosa (2021) underscore how the pandemic has catalyzed technology adoption in education, leading to significant transformations in teaching and learning practices. The shift towards digital technologies has been observed in higher education and primary and technical education settings.

The prevalence of technology adoption in education after the pandemic is evident across various educational sectors. The crisis has forced educators and institutions to embrace technology to ensure continuity in learning, focusing on leveraging digital tools to enhance teaching practices and student engagement. The lessons learned during the pandemic are expected to shape the future of education, emphasizing the integral role of technology in facilitating effective and innovative learning experiences.

Challenges persist in technology adoption and integration, particularly in addressing the digital divide in schools in remote areas that need internet access. Despite advancements in technology integration in education post-pandemic, the issue of unequal access to digital resources remains a significant barrier. The lack