ABSTRACT

Digitalization projects in Technical, Vocational Education and Training institutions have experienced high failure rates, exceeding 70%. These failures are attributed to a combination of technical, managerial, and strategic challenges, including inadequate infrastructure, poor oversight, weak regulatory frameworks, and limited stakeholder alignment. This study aimed to develop a model to guide the successful implementation of digitalization projects in Ugandan TVET institutions. The model tested in the study was informed by three theories. These were the Agency Theory as the foundational lens, and further strengthened by the DeLone and McLean Information Systems Success Model, and the Dynamic Capabilities Framework. These theories when integrated to address issues of governance, system effectiveness, and institutional adaptability, which are critical for long-term success in digitalization initiatives. The study adopted a pragmatic research philosophy, an abductive approach, and a design science methodology, the study involved participants from selected Technical and Vocational Education and Training institutions across various districts in Uganda. A purposive and stratified sampling approach was used to ensure representation across administrators, instructors, and other key stakeholders involved in digitalization efforts. The analysis of data from the field study was conducted using Structural Equation modeling (SEM), with tools such as SPSS and SmartPLS. The results revealed that process quality significantly improves communication ($\beta = 0.593$, $p < 0.001$), which in turn enhances project outcomes ($\beta = 0.411$, $p < 0.001$). Monitoring emerged as a key mediating factor ($\beta = 0.382$, $p < 0.01$), while goal conflict was found to inversely relate to digitalization success ($\beta = -0.326$, $p < 0.05$). Outcome-based contracts, however, did not show a significant effect ($\beta = 0.107$, $p = 0.152$). Reliability analysis showed strong internal consistency across key constructs, with Cronbach's alpha values exceeding 0.7 (e.g., Power = 0.831; Politics = 0.872; Counterproductive Multitasking = 0.920; User Satisfaction = 0.839). The study contributes to theory by extending Agency Theory in the context of public sector digitalization, integrating insights from systems success and dynamic capability literature. Practically, it offers a structured model for improving digitalization outcomes through enhanced monitoring, stakeholder communication, and attention to governance and institutional responsiveness, which are factors particularly relevant in developing country contexts like Uganda.