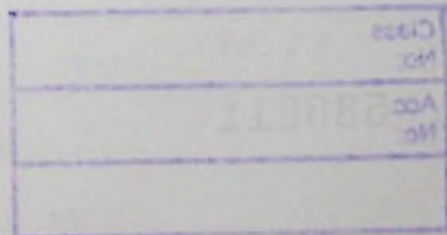# Evaluation of e-learning adaption: A study of the outcome of an e-learning program among farmers

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Abstract

The research work in this dissertation seeks to explore how to improve farmers' satisfaction and adoption of e-learning. In the dissertation, two research frameworks are developed based on previous studies for farmers' e-learning satisfaction and farmers' e-learning adoption and outcome. The frameworks are then evaluated using survey research methodology. Based on 230 useful responses, the frameworks are evaluated using structural equation modeling and path analysis. The framework with twelve proposed determinants of farmers' e-learning satisfaction and a framework integrated with Technology Acceptance Model (TAM) and DeLone and McLean's IS success model (D&M IS) success model with twelve proposed determinants of farmers'-learning adoption and outcome have been examined. The dissertation provides a number of new insights for both researchers and practitioners. In particular, the dissertation specifies a practical solution to deal with the disruptive effects which keeps the use of e-learning away from the farmers. Further, the research identifies several key factors driving e- learning satisfaction and adoption in agriculture settings. In theory, this study achieved significant progress towards developing a general instrument for measuring farmers' satisfaction with e-learning systems. The validated 12-factor e-learning satisfaction instrument is specified for farmers whereas some factors have not been tested by previous research. Furthermore, this instrument can be used for testing e-learning satisfaction among different target groups similar to the farmers. Further the study investigated how TAM variables influence e-learning usage behavior and e-learning outcomes. Most of the prior studies only investigated the adoption and use of e-learning systems. This study develops a framework for investigating e-learning adoption and e-learning adoption outcomes by integrating e-learning adoption determinants, e-learning adoption behaviors, and e-learning adoption outcomes combined together. The framework has been developed specifically for e-learning context for farmers and can be used as the starting point for building research models for investigating e-learning adoption and outcomes for users in different professions. The study indicated the alignment of e-learning systems with farmers, in the form of farmers' job performance and farmers' individual learning needs, by relying on strengths in their learning performances. This validation will help to facilitate the design of e-learning for farmers' self-directed learning in their workplaces. Practically, the results will help institutions investing in e- learning systems to give knowledge and information for farmers, and theoretically, the clarification facilitates the further advancement of the TAM and IS success model.