

i- Agripreneurial Analytics (i-APA) for Smart Farming

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Abstract

There is an urgency to develop a system application to automate agricultural processes in addressing agricultural related-concerns that bridge the gap between machine learning analytics solutions, mirrored on the need to accelerate the country's economic recovery. The developed system application aimed at guiding farmers on their farming profitability generate data analytics-based advisories and artificial intelligence for better farm management decision-making. This descriptive research design focused on the evaluation of system effectiveness in terms of software quality, acceptability, readiness and impact assessment among thirty-eight farmers practicing diversified farming as respondents of the study. Purposive sampling technique was adopted in identifying the respondents. Questionnaire for the evaluation of software quality, level of acceptability, and level of readiness of respondents has been adapted from ISO/IEC 25010:2011 while the impact assessment questionnaire as to farming management, profitability and attainment of goals and objectives has been crafted securing Cronbach result of 0.914 interpreted as excellent. The study findings revealed that the respondents evaluated the software quality of the system application as excellent, highly acceptable, and ready to adopt. The respondents agreed on the impact of the system application in smart farming. There was a significant difference on respondents' evaluation of the software quality; there was no significant difference in the level of acceptability and level of readiness among respondents in adopting the system application; and there was a significant difference on respondents' impact assessment on the use of the system application. The crafted strategic plan may be adopted to further improve smart farming using computing system analytics.

Keywords: system analytics, Artificial Intelligence, smart farming, diversified farming, system application, software quality