Adoption and Use of an Electronic Voting System in Ghana

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Abstract: The manual system of voting has been the most widely used system of electing representatives around the globe, particularly in Africa. Due to the known numerous problems and challenges associated with the manual system of voting, many countries are migrating to the electronic voting system as a suitable and credible means of electing representatives over the manual paper-based system. This research paper therefore investigated the factors influencing adoption and use of an electronic voting system in Ghana. A total of 400 Questionnaire Instruments (QI) were administered to potential respondents in Ghana, of which 387 responded representing a response rate of 96.75%. The Technology Acceptance Model was used as the theoretical framework for the study. The research model was tested using a simple linear regression analysis with SPSS. A little of over 71.1% of the respondents recommended the Electoral Commission (EC) of Ghana to adopt an electronic voting system in the conduct of public elections in Ghana. The results indicated that all the six predictors such as perceived usefulness (PU), perceived ease of use (PEOU), perceived free and fair elections (PFFF), perceived credible elections (PCE), perceived system integrity (PSI) and citizens trust in the election management body (CTEM) were all positively significant in predicting the readiness of citizens to adopt and use an electronic voting system in Ghana. However, jointly, the hypotheses tested revealed that apart from Perceived Free and Fair Elections and Perceived Credible and Transparent Elections, all the other factors such as PU, Perceived System Integrity and Security and Citizen Trust in the Election Management Body were found to be significant predictors of the Willingness of Ghanaians to use an electronic voting system. All the six factors considered in this study jointly account for about 53.1% of the reasons determining the readiness to adopt and use an electronic voting system in Ghana. The implications of this research finding on elections in Ghana are discussed.

Keywords: credible elections, Election Management Body (EMB), electronic voting, Ghana, Technology Acceptance Model

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