

Green IS diffusion in organizations: a model and empirical results from Malaysia

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Abstract

This article examines the variables that influence information technology (IT) executives' intention towards diffusing Green Information System (IS) for environmental sustainability attainment in organizations by utilizing IS as a solution to resolve the issues caused by traditional IT usage. Through the review of prior Green IS and Green IT studies, this article proposes a Green IS structural model based on the Unified Theory of Acceptance and Use of Technology, after which survey data were collected from IT executives in various organizations in Malaysia. With 133 valid survey datasets at hand, partial least square-structural equation modelling method was employed to analyse the survey replies. Results show that human infrastructure, administrative policies, IS infrastructure, institutional pressure, IS strategy and knowledge accessibility significantly influence Green IS diffusion. In addition, results disclose that the moderating variable age of IT executives positively influences their behaviour towards adopting Green IS, whereas the gender, education and experience does not influence their behaviour towards Green IS diffusion. Further results reveal that control variables size, sector and revenue of the organization do not influence Green IS diffusion in organizations. Theoretical implication of this research contributes to existing knowledge on Green IS diffusion behaviours of IT executives towards environmental sustainability by offering an agenda and empirically exploring Green IS practice in organizations. Practical implication for this study provides empirical evidence from IT executives emphasizing that Green IS is capable of decreasing the environmental effects of traditional IT infrastructure deployment in organizations.

Keywords Environmental sustainability · Traditional IT deployment · Green IS diffusion · IT executives' behaviour · Organizations · UTAUT · PLS-SEM