

AI-Driven Work Design and Enterprise Sustainability: Insight from Emerging Economy

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Abstract

This study investigates the influence of AI-Driven Work Design (AI-DWD) on Enterprise Sustainability (ES). Determinants of AI-DWD explored in this work are AI-Driven Task Automation (AI-DTA), AI-Supported Decision Making (AI-SDM), and AI-Enabled Work Redesign (AI-EWR); while the determinants of ES explored include Economic Sustainability (EcS), Environmental Sustainability (EnS), and Social Sustainability (SoS). Purpose: This research is required to fill existing gap of low exploration of AI-DWD and ES in the context of emerging economies. Accordingly, this research addresses threats associated with ES in banking industry, using case of Selected Bank (SB) firm. Method: An empirical survey was conducted, using SB, a firm known for technological inclination. Data were analysed using 29th version of SPSS to derive F-Statistic (F-S) of joint influence of AI-DTA, AI-SDM, and AI-EWR on respective determinants of ES. Results: AI-DTA, AI-SDM, and AI-EWR reveal a jointly significant influence on EcS. More so, AI-DTA, AI-SDM, and AI-EWR show jointly significant influence on SoS. However, AI-DTA, AI-SDM, and AI-EWR demonstrate jointly insignificant influence on EnS. Contributions: First, this research conceptualizes joint influence of AI-DTA, AI-SDM, and AI-EWR on each determinant of ES. Second, this paper makes an empirical contribution by breaking down AI-work design into AI-DTA, AI-SDM, and AI-EWR, and thus shows how distinct AI work practices influence different aspects of ES. Third, it adds to methodological literature by exploring F-S component of Multiple Regression (MR) analyses. Consequently, this study provides insights that serve as guide to managers, policymakers, and scholars.

Keywords: Artificial intelligence (AI); enterprise sustainability; AI-driven task automation; AI-supported decision making; AI-enabled work redesign; economic sustainability; environmental sustainability; F-Statistic; socio-technical systems