BEYOND TECHNOLOGICAL READINESS: THE DOMINANT ROLE OF TOP MANAGEMENT SUPPORT IN CLOUD AI ADOPTION INTENTION AMONG SRI LANKAN SMEs

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Abstract

Cloud AI has emerged as a critical enabler of digital transformation, offering organizations scalable infrastructure, cost efficiency, and improved operational flexibility. Despite these benefits, the adoption intention toward Cloud AI technologies among Small and Medium Enterprises (SMEs) in developing economies such as Sri Lanka remains relatively limited. Drawing on the Technology Organization Environment (TOE) framework and the Technology Acceptance Model (TAM), this study investigates the influence of Top Management Support and Technology Readiness on Cloud AI adoption intention among SMEs in Sri Lanka. The study adopts a positivist research philosophy and a deductive approach, using a quantitative research design. Data were collected through a structured questionnaire administered to 384 SME owners, managers, and decision-makers in Sri Lanka, selected through purposive sampling. The collected data were analyzed using correlation and multiple regression analysis with the support of SPSS to examine the relationships between the identified variables. The regression model was statistically significant ($p < 0.001$), with Top Management Support and Technology Readiness jointly explaining 76.4% of the variance in Cloud AI adoption intention ($R^2 = 0.764$). Top Management Support exhibited a strong, positive, and statistically significant effect on adoption intention ($\beta = 0.869$, $p < 0.001$), while Technology Readiness showed a weaker and non-significant effect ($\beta = 0.13$, $p = 0.633$). These findings highlight the dominant role of internal organizational factors particularly top management support in shaping Cloud AI adoption decisions among SMEs, and suggest that technological readiness alone is insufficient to drive adoption intention. The study contributes to the existing literature by providing empirical evidence within the Sri Lankan SME context and offers practical recommendations for SME leaders, policymakers, and technology service providers to enhance Cloud AI adoption and support digital transformation.

Keywords: Cloud AI, Cloud AI Adoption Intention, SMEs, Technology Readiness, Top Management Support