

Digital Transformation Effect on Small and Medium Enterprises: Impact on Sabaragamuwa Province in Sri Lanka

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Abstract

This study explores the impact of digital transformation on the performance of Small and Medium Enterprises (SMEs) in the Sabaragamuwa Province of Sri Lanka. In an era where digital technologies are reshaping business operations, many rural SMEs continue to face challenges in digital adoption due to limited resources, infrastructure, and support. The research aims to examine how four variables – compatibility, cost-effectiveness, trust, and human-technology interactivity – impact SME performance in a developing regional context. A quantitative research design was adopted, and data were collected from 322 SMEs across agriculture, manufacturing, and service sectors. Statistical tools, including descriptive analysis, correlation, and regression analysis, were employed to assess the relationships between the main factors. Findings confirmed that all four variables positively impact SME performance, with human-technology interactivity emerging as the most influential predictor. The regression model explained 63.3% of the variation in SME performance, showing the importance of interactive, affordable, and trustworthy digital tools that align with existing business systems. The study highlights that digital adoption is an important driver of SME competitiveness and sustainability in rural regions, as long as digital solutions are accessible, secure, and aligned with operational needs. Practical recommendations are offered for policymakers, technology developers, and SME owners to overcome transformation barriers. The study also contributes to the academic understanding of digital transformation in developing economies and suggests future research directions to further explore this evolving domain.

Keywords: compatibility, cost-effectiveness, digital transformation, human-technology interaction, SMEs, trust