

# Technology Readiness and E-Commerce Adoption as a Strategy to Improve MSME Business Performance in Bogor City

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**Background:** Digital transformation has become a critical driver of competitiveness among Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. Previous studies have confirmed the role of the Technology, Organization, Environment (TOE) framework in explaining technology adoption behavior. However, limited empirical research has explored how TOE factors simultaneously influence e-commerce adoption and how this adoption impacts MSME performance in Indonesia, particularly in regional cities such as Bogor.

**Purpose:** This study aims to examine the influence of technological, organizational, and environmental factors on e-commerce adoption and to analyze the role of e-commerce adoption in improving MSME performance in Bogor City.

**Methodology:** : A quantitative approach was employed using a survey method. Data were collected from 211 MSME respondents in Bogor City who have utilized or are in the process of adopting e-commerce platforms. The research model was based on the TOE framework, and data analysis was conducted using Pearson correlation and path analysis with SPSS 25. The study tested the relationships among technology readiness, organizational support, and environmental pressure on e-commerce adoption, and subsequently on MSME performance.

**Finding:** The findings reveal that all three TOE factors significantly and positively influence e-commerce adoption. Among them, the environmental factor shows the strongest correlation ( $r = 0.689$ ), followed by organizational ( $r = 0.639$ ) and technological ( $r = 0.579$ ) factors. Furthermore, e-commerce adoption has a significant positive correlation with MSME performance ( $r = 0.656$ ). These results suggest that MSME organization, environmental support and technological capability are essential for enhancing e-commerce adoption and improving MSME performance. The originality of this study lies in integrating TOE factors with e-commerce adoption as a mediating mechanism to explain MSME performance improvement at the city level.

**Limitation:** This research is limited by its cross sectional design and focus on a single geographical area Bogor City thus restricting generalization across different regions and business contexts. Future studies should employ longitudinal or comparative methods to validate the model across various local economies.

**Originality:** This study contributes to the empirical validation of the TOE framework within the Indonesian MSME context and provides novel insights into how technology readiness acts both as a direct and indirect driver of business performance through e-commerce adoption. The findings also offer practical implications for policymakers to strengthen MSME digital readiness through infrastructure development, training programs, and incentive policies.

**Keywords:** adoption, business performance, e-commerce, MSMEs, technology readiness, TOE framework