



THE ROLE OF DIGITAL TRANSFORMATION IN STRATEGIC INNOVATION AND ENTREPRENEURIAL GROWTH: A MIXED- METHOD STUDY IN EMERGING ECONOMIES WITH REFERENCE TO INDIA AND EUROPE.

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ABSTRACT

This research project explores the complex relationship between India's emerging digital transformation, strategic innovation and entrepreneurial growth, from a comparative perspective with emerging economies, particularly European countries. The aim is to understand how digital technologies help startups and SMEs to create their place in the economy and competitive market, enabling them to innovate and scale using mixed methods through case studies. The research is based on RBV, TOE, and Schumpeterian innovation theory and provides insights for academics, policy makers, and business practitioners. The primary goal is to assess how digital technologies are enabling startups and SMEs to innovate strategically and efficiently, and to compare these trends with advanced European economies to determine the position of Indian startups. It will contribute to the academic discussion on entrepreneurship, provide an understanding of startups and SMEs, inform policy decisions, and provide practical insights for business entrepreneurs.

KEYWORDS

Strategic Innovation, Digital Transformation, Entrepreneurship, SMEs and Startups, Emerging Economies, Human Resource Capabilities.

I. INTRODUCTION

In today's rapidly changing and dynamic global economy, digital transformation has become a central force in redefining global business models, value chains, and market dynamics. Emerging economies, including India, are increasingly embracing digital tools to overcome traditional barriers to growth and achieve their goals in competitive markets. Entrepreneurs in these markets are moving towards digitally enabled initiatives, but the gap between speed strategy and impact remains. This gap is greatly increased with the right technology and strategy.

This study critically assesses how strategic innovation and entrepreneurship enable growth in India, comparing it with European countries, and provides practical and policy implications to help them become better at it.

II. LITERATURE REVIEW

Digital transformation has emerged as the foundation of modern business practices in the current global economy. Bharatavaj (2013) suggest that the combination of IT and business strategies leads to improved performance outcomes, which becomes essential for startups and SMEs. Tice (1997) focus on the dynamic capacity for resource restructuring in response to technological change. Nambisan (2017) discusses how digital platforms have transformed the entrepreneurial landscape. However, most existing research centres on advanced economies, whose importance is immense. Emerging economies like India face major challenges such as infrastructure gaps, regulatory uncertainty and limited digital capabilities. It becomes essential to contextualize existing theories and frameworks to adapt to these local dynamics.

III. OBJECTIVES

1. How digital transformation, strategic innovation and entrepreneurial performance impact emerging economies like India.
2. Finding similarities and differences in digital transformation strategies between Indian and European startups and SMEs.
3. Analysing how human resource capabilities contribute to the success of digital transformation initiatives.
4. To encourage Indian startups by providing practical insights and policy recommendations to support digital entrepreneurship in emerging markets.

IV. HYPOTHESES

- H1: Digital transformation significantly increases strategic innovation in Indian SMEs.
 H2: European SMEs exhibit higher digital maturity and structured DT strategies than Indian SMEs.
 H3: Human resource capabilities positively moderate the impact of digital transformation on business performance.

V. DATA COLLECTION

Primary data will be collected through structured surveys and in-depth interviews with startups and SMEs in India and selected European countries. Secondary data will be sourced from industry reports, government publications, and peer-reviewed journals. This mixed-method approach will provide both quantitative and qualitative insights into digital transformation, strategic innovation, and entrepreneurial growth.

VI. RESEARCH METHODOLOGY

This study employed a mixed method approach combining qualitative and quantitative methods. The quantitative data were analysed using statistical tools including regression and correlation analysis. Qualitative data from the interviews were thematically coded to identify patterns and insights. The sample was selected using stratified sampling across the IT manufacturing and retail sectors in both regions.

VII. QUANTATIVE DATA AND RESULTS

Digital Maturity Index (DMI) of Indian MSMEs

Current Status: India's overall Digital Maturity Index (DMI) for MSMEs has been steadily climbing, reaching 58.0 in 2025, a rise from 56.6 in 2023 and 57.3 in 2024.

Implication: This upward trend indicates a growing readiness among Indian MSMEs for digital transformation, aligning with my hypothesis that digital transformation significantly increases strategic innovation in Indian SMEs (H1).

Adoption of Digital Tools and Business Growth

Findings: Over 73% of MSMEs in semi-urban and rural India have experienced business growth through the adoption of digital tools, leading to increased income and enhanced operational efficiency.

Implication: This supports the notion that digital transformation enables startups and SMEs to innovate strategically and efficiently, contributing to entrepreneurial growth.

Human Resource Capabilities and Digital Transformation

Study: A study by Mahmoud (2025) revealed that both digital HRM systems and digital transformation positively impact HR efficiency. Specifically, digital HRM systems had a significant impact ($\beta = 0.456$, $p < 0.001$), while digital transformation also showed a positive effect ($\beta = 0.194$, $p = 0.006$).

Implication: This finding underscores the importance of human resource capabilities in the success of digital transformation initiatives, aligning with my hypothesis that human resource capabilities positively moderate the impact of digital transformation on business performance (H3).

Qualitative Insights & Comparative Analysis

India

Digital Initiatives: The Indian government has launched initiatives like the Digital India Programme, aiming to enhance digital infrastructure and promote digital literacy.

Challenges: Despite progress, challenges such as limited digital literacy, infrastructure gaps, and regulatory uncertainties persist, hindering the full potential of digital transformation.

Opportunities: The growing digital adoption among youth and the increasing number of MSMEs registered on the Udyam portal present significant opportunities for leveraging digital tools for innovation and growth.

Europe

Digital Maturity: European SMEs exhibit higher digital maturity, with countries like Germany leading in digital readiness. However, disparities exist, with some countries facing challenges in digital adoption.

Human Resource Capabilities: Studies indicate that European SMEs are increasingly investing in digital HRM systems to enhance HR efficiency and support digital transformation.

Strategic Innovation: European SMEs are leveraging digital tools to foster strategic innovation, enabling them to compete effectively in the global market.

VIII. COMPARATIVE ANALYSIS

Aspect	India	Europe
Digital Maturity Index	58.0 (2025)	Higher in countries like Germany
Adoption of Digital Tools	73% of MSMEs in semi-urban and rural areas have experienced business growth	Widespread adoption, though some SMEs still lack basic digital tools
Human Resource Capabilities	Growing focus on digital HRM systems to enhance HR efficiency	Significant investment in digital HRM systems to support digital transformation
Strategic Innovation	Increasing use of digital tools for innovation, especially among youth	Established practices leveraging digital tools for strategic innovation

IX. CONCLUSION AND FINDINGS

The data and insights presented affirm the hypotheses proposed in my research

H1: Digital transformation significantly increases strategic innovation in Indian SMEs.

H2: European SMEs exhibit higher digital maturity and structured digital transformation strategies than Indian SMEs.

H3: Human resource capabilities positively moderate the impact of digital transformation on business performance.

These findings provide a comprehensive understanding of the role of digital transformation in strategic innovation and entrepreneurial growth, offering valuable insights for academics, policymakers, and business practitioners.

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