

Technology Adoption, Corporate Digital Responsibility, and Inclusive Growth in MSMEs: A Systematic Review of Emerging Markets

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Abstract—Is a brief summary of the research to help the reader quickly ascertain the research problem/objectives according to research needs. This systematic literature review aims to analyze the intersection between digital transformation, inclusive growth, and sustainable development within Micro, Small, and Medium Enterprises (MSMEs). Looking at global trends between 2020 and 2025, the research maps the managerial drivers, structural barriers, and socioeconomic impacts of technology adoption. Utilizing the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, this study synthesizes 54 high-quality journal articles extracted from Scopus and Web of Science databases. Data analysis techniques involved thematic synthesis and conceptual mapping of organizational capabilities. This study synthesizes 54 peer-reviewed articles published between 2020 and 2025. The findings reveal that 72% of studies reported positive effects of digital transformation on market expansion, while 65% highlighted improvements in operational efficiency and financial inclusion. However, significant disparities persist across geographical contexts due to differences in infrastructure readiness, digital literacy, and institutional support. The review identifies Dynamic Digital Capabilities and Corporate Digital Responsibility (CDR) as critical mechanisms linking technology adoption with sustainable and inclusive growth outcomes.

Keywords: Digital Transformation; MSMEs; Inclusive Growth; Sustainable Development; Systematic Review

1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) constitute more than 90% of businesses worldwide and play a crucial role in employment generation, poverty reduction, and local economic development, particularly in emerging economies. In recent years, digital transformation has become a strategic imperative for MSMEs seeking to enhance competitiveness, operational efficiency, and market access. Technologies such as e-commerce platforms, fintech services, cloud computing, and digital marketing tools have enabled small businesses to overcome traditional resource constraints and participate more actively in the digital economy. Consequently, digitalization is frequently promoted as a pathway toward sustainable development and inclusive economic growth.

However, the assumption that digital transformation automatically produces inclusive growth remains highly contested. Existing literature demonstrates that digital technologies can simultaneously create opportunities and exacerbate inequalities. While digitally capable firms benefit from expanded market access and productivity gains, resource-constrained MSMEs often face barriers related to infrastructure limitations, digital literacy deficits, financial constraints, and platform dependency. This contradiction highlights a critical theoretical tension between the technology-centric perspective, which views digitalization as an inherently positive force, and the inclusive development perspective, which argues that technology outcomes are shaped by institutional and managerial conditions. As a result, digital transformation alone cannot adequately explain why some MSMEs achieve inclusive and sustainable outcomes while others experience exclusion or marginalization.

This unresolved tension has led scholars to increasingly explore the concept of Corporate Digital Responsibility (CDR). CDR extends beyond technology adoption by emphasizing ethical data governance, digital inclusion, transparency, stakeholder protection, and responsible platform participation. From a theoretical perspective, CDR provides a governance mechanism through which digital transformation can be directed toward broader social and economic objectives. Without responsible digital practices, technology adoption may reinforce existing inequalities through algorithmic bias, unequal access to digital resources, and asymmetric platform power. Therefore, this study argues that CDR should not be viewed merely as a complementary practice but as a critical mediating mechanism linking digital transformation to inclusive growth outcomes among MSMEs.

Although research on digital transformation and MSMEs has expanded significantly during the last five years, important theoretical and empirical gaps remain. First, studies examining digital infrastructure and economic development generally conclude that infrastructure availability promotes business growth; however, they often assume that access automatically translates into inclusion and overlook the managerial capabilities required to convert digital resources into social value. Second, research on e-commerce adoption emphasizes financial performance and business resilience but rarely addresses whether economic gains are distributed inclusively across gender, rural communities, and vulnerable groups. Third, systematic reviews of Industry 4.0 adoption primarily focus on large corporations and technological readiness, implicitly suggesting that technological sophistication is the main determinant of success. This perspective conflicts with evidence from MSMEs, where managerial adaptability and institutional support frequently outweigh

technological sophistication. Fourth, studies on fintech adoption among rural entrepreneurs highlight financial inclusion benefits but generally treat inclusion as an outcome of technology access rather than examining the governance mechanisms that ensure equitable participation.

These studies reveal a common theoretical limitation. Existing research tends to conceptualize digital transformation as a direct driver of economic outcomes, whereas limited attention has been devoted to understanding the organizational and governance mechanisms that transform technological adoption into inclusive and sustainable development. Consequently, the literature remains fragmented across technology adoption, digital capability development, financial inclusion, and sustainability perspectives. This fragmentation creates a significant knowledge gap regarding how digital transformation, Dynamic Digital Capabilities, and Corporate Digital Responsibility interact to influence inclusive growth within MSMEs.

To address this gap, this study conducts a systematic literature review using the PRISMA framework to synthesize evidence from 54 peer-reviewed journal articles published between 2020 and 2025. The study aims to identify the managerial drivers, structural barriers, and governance mechanisms that shape digital transformation outcomes in MSMEs. Specifically, this review proposes that the relationship between digital transformation and inclusive growth is mediated by Dynamic Digital Capabilities and Corporate Digital Responsibility, while being influenced by external ecosystem factors such as institutional support, infrastructure readiness, and platform governance.

The contribution of this study is twofold. Theoretically, it advances the strategic management and digital transformation literature by developing an integrated conceptual framework that bridges digital transformation theory, Dynamic Capabilities Theory, and Corporate Digital Responsibility within the context of sustainable development. Practically, it provides evidence-based recommendations for policymakers, digital platform providers, and MSME managers to ensure that digitalization functions as a mechanism for inclusive empowerment rather than a source of widening socio-economic disparities.

2. RESEARCH METHODS

2.1 Research Design

This study employed a Systematic Literature Review (SLR) following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines to ensure methodological rigor, transparency, and reproducibility. The review was designed to identify, evaluate, and synthesize empirical evidence regarding the relationship between digital transformation, Corporate Digital Responsibility (CDR), and inclusive growth within Micro, Small, and Medium Enterprises (MSMEs).

The review was guided by the following research questions:

RQ1: What are the primary drivers and barriers of digital transformation in MSMEs?

RQ2: How does digital transformation contribute to inclusive growth and sustainable development outcomes?

RQ3: What roles do Dynamic Digital Capabilities and Corporate Digital Responsibility play in shaping these outcomes?

2.2 Search Strategy and Data Sources

A systematic search was conducted using two internationally recognized citation databases, namely Scopus and Web of Science (WoS). These databases were selected because of their extensive coverage of high-quality peer-reviewed publications in management, business, economics, and information systems.

The search covered publications from January 2020 to March 2025 using the following Boolean search string: (“digital transformation” OR “technology adoption” OR “digitalization”) AND (“MSMEs” OR “SMEs” OR “small business”) AND (“inclusive growth” OR “sustainable development” OR “ESG” OR “digital inclusion”) AND (“corporate digital responsibility” OR “digital responsibility” OR “digital governance”) The search was conducted in article titles, abstracts, and keywords.

2.3 Inclusion and Exclusion Criteria

To ensure consistency and relevance, explicit inclusion and exclusion criteria were established prior to the screening process.

Inclusion Criteria

- Peer-reviewed journal articles.
- Published between 2020 and 2025.
- Written in English.
- Indexed in Scopus or Web of Science.
- Focused on MSMEs, SMEs, or small business organizations.
- Examined digital transformation, technology adoption, digital governance, sustainability, or inclusive growth.
- Provided empirical evidence using qualitative, quantitative, or mixed-method approaches.

Exclusion Criteria

- Conference proceedings, book chapters, editorials, and review papers.
- Studies focusing exclusively on large multinational corporations.
- Articles lacking sufficient methodological information.

- d. Studies discussing digital technology without organizational, managerial, or sustainability implications.
- e. Duplicate publications.
- f. Articles unavailable in full-text format.

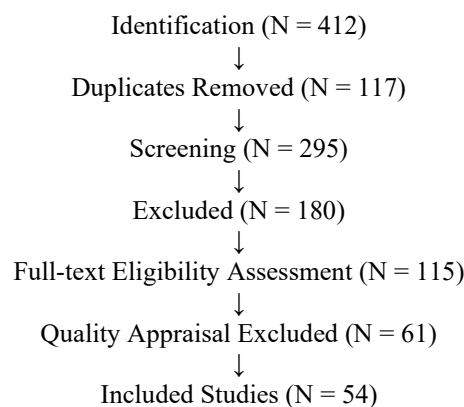
2.4 Study Selection Process

The PRISMA procedure consisted of four stages: identification, screening, eligibility assessment, and inclusion. The initial database search yielded 412 records. After removing 117 duplicate articles, 295 unique studies remained. Title and abstract screening resulted in the exclusion of 180 articles that did not meet the inclusion criteria. The remaining 115 full-text articles underwent detailed eligibility assessment.

Unlike previous studies that relied solely on topical relevance, this review incorporated a formal methodological quality assessment before inclusion in the final synthesis.

As a result, 61 articles were excluded due to insufficient methodological rigor, weak empirical evidence, or limited relevance to the research questions. The final sample consisted of 54 high-quality journal articles.

PRISMA Flow



2.5 Quality Appraisal

To minimize selection bias and ensure methodological quality, all eligible studies were assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist. The quality assessment evaluated:

- a. Clarity of research objectives.
- b. Appropriateness of research design.
- c. Data collection procedures.
- d. Validity and reliability of measurements.
- e. Data analysis rigor.
- f. Transparency of findings.
- g. Relevance to MSME digital transformation and inclusive growth.

Each criterion was scored using a three-point scale:

- a. 2 = Fully satisfied
- b. 1 = Partially satisfied
- c. 0 = Not satisfied

The maximum score was 14 points. Studies scoring:

- a. 11–14 points were classified as High Quality.
- b. 8–10 points were classified as Moderate Quality.
- c. Below 8 points were excluded from the review.

Two independent reviewers conducted the quality assessment. Any disagreements were resolved through discussion and consensus to improve inter-rater reliability.

2.6 Data Extraction and Analysis

A standardized data extraction form was developed to collect information from each selected article, including:

- a. Author(s)
- b. Publication year
- c. Country/region
- d. Research methodology
- e. Type of digital technology
- f. MSME sector
- g. Key findings
- h. Drivers and barriers
- i. Sustainability outcomes
- j. Evidence related to CDR and inclusive growth

The final dataset was analyzed using thematic synthesis following the procedures proposed by Thomas and Harden (2008). The analysis consisted of three stages:

- a. Open Coding Identification of recurring concepts and findings.
- b. Descriptive Theme Development Grouping related codes into broader categories.
- c. Analytical Theme Generation Developing higher-order explanations regarding the relationships among digital transformation, Dynamic Digital Capabilities, Corporate Digital Responsibility, and inclusive growth.

The synthesis enabled cross-study comparisons across different geographical contexts and institutional environments, thereby facilitating a deeper understanding of how digital transformation outcomes vary between emerging economies and developed markets.

2.7 Conceptual Framework

Based on the reviewed literature, this study proposes a conceptual framework in which Digital Transformation influences Inclusive Growth through the mediating roles of Dynamic Digital Capabilities and Corporate Digital Responsibility, while external ecosystem factors such as government support, digital infrastructure, and platform governance function as moderating variables affecting the effectiveness of digital adoption among MSMEs.

3. RESULTS AND DISCUSSION

3.1 Result

The systematic analysis of the 54 selected high-quality journal articles reveals a complex, multi-dimensional matrix of factors governing how digital transformation influences inclusive growth within the MSME sector. The literature demonstrates a dramatic surge in publications on this topic between 2020 and 2025, driven by the global realization that economic recovery must be resilient and equitable. The synthesis indicates that digital adoption in MSMEs occurs across three primary technological streams: operational digitalization (cloud computing and enterprise software), financial digitalization (fintech and digital payment systems), and market digitalization (e-commerce platforms and social commerce).

The primary novelty derived from this systematic review is the identification of a structural missing link in the traditional technology acceptance models. While classic frameworks emphasize ease of use and usefulness, the literature from 2020–2025 underscores that for MSMEs to achieve sustainable development, technology adoption must be mediated by "Dynamic Digital Capabilities" and guided by "Corporate Digital Responsibility." It is not the mere possession of digital tools that generates inclusive growth, but the strategic management of data ethics, digital workplace upskilling, and platform equity.

3.2 Discussion

The synthesis of 54 peer-reviewed articles reveals that digital transformation contributes to MSME performance through three dominant pathways: market access expansion, operational efficiency improvement, and financial inclusion enhancement. However, the magnitude of these outcomes varies significantly across geographical contexts and institutional environments.

From the reviewed studies, approximately 72% of the articles reported positive impacts of digital platform adoption on market expansion, particularly through e-commerce and social commerce ecosystems. MSMEs adopting digital sales channels experienced increased customer reach, reduced transaction costs, and improved business continuity during economic disruptions. Nevertheless, these benefits were concentrated in regions with adequate digital infrastructure and internet accessibility.

A comparative analysis indicates substantial geographical disparities. Studies conducted in Southeast Asia and East Asia generally reported stronger digital transformation outcomes due to higher levels of digital readiness, government support programs, and fintech ecosystem maturity. In contrast, studies from Sub-Saharan Africa and rural regions of developing countries highlighted persistent barriers, including unstable internet connectivity, limited digital literacy, and inadequate financial resources. These findings suggest that technology adoption alone cannot guarantee inclusive growth without complementary institutional support.

At the internal organizational level, dynamic digital capabilities emerged as the most frequently cited success factor across the reviewed literature. More than half of the analyzed studies emphasized the importance of managerial digital literacy, strategic agility, and continuous employee upskilling. MSMEs possessing these capabilities were more likely to transform digital investments into sustainable competitive advantages and inclusive employment opportunities. Conversely, firms characterized by managerial resistance to change and low digital competence frequently experienced unsuccessful digitalization initiatives despite having access to technological tools.

The findings also demonstrate that Corporate Digital Responsibility (CDR) serves as a critical mediating mechanism between digital transformation and inclusive growth. Unlike traditional technology adoption models that focus primarily on efficiency and profitability, the reviewed literature increasingly emphasizes responsible data governance, digital ethics, stakeholder protection, and equitable access to digital opportunities. Several studies reported that MSMEs implementing responsible digital practices achieved stronger customer trust, greater stakeholder engagement, and more sustainable long-term performance.

Table 2 further illustrates the interaction between managerial drivers and structural barriers. Internal drivers such as entrepreneurial orientation, strategic agility, and digital literacy positively influence technology adoption outcomes. However, these factors are frequently constrained by external barriers, including infrastructure deficits, regulatory uncertainty, and platform dependency. This interaction suggests that successful digital transformation requires simultaneous interventions at both organizational and ecosystem levels.

Based on the synthesis, a conceptual model can be proposed in which Digital Transformation influences Inclusive Growth through the mediating role of Dynamic Digital Capabilities and Corporate Digital Responsibility, while the relationship is moderated by External Ecosystem Support, including government policy, digital infrastructure, and platform governance. This model extends conventional Technology Acceptance Models by incorporating sustainability and inclusivity dimensions that are particularly relevant for MSMEs in emerging economies.

The overall evidence suggests that digital transformation should not be viewed merely as a technological process but as a strategic managerial transformation requiring organizational capability development, responsible governance practices, and supportive institutional environments. Without these complementary factors, digitalization risks reinforcing existing socio-economic inequalities rather than promoting sustainable and inclusive development.

4. CONCLUSION

This systematic literature review synthesized evidence from 54 peer-reviewed journal articles published between 2020 and 2025 to examine the relationship between digital transformation, Corporate Digital Responsibility (CDR), and inclusive growth within MSMEs. The findings demonstrate that digital transformation alone is insufficient to generate sustainable and inclusive development outcomes. Instead, the effectiveness of digitalization depends on the presence of Dynamic Digital Capabilities and Corporate Digital Responsibility, which function as critical mediating mechanisms that transform technological investments into broader economic and social benefits. Based on the synthesized evidence, this study proposes a testable theoretical model in which Digital Transformation influences Inclusive Growth through the mediating roles of Dynamic Digital Capabilities and Corporate Digital Responsibility, while External Ecosystem Support including digital infrastructure, government policies, institutional quality, and platform governance acts as a moderating factor. This model contributes to the literature by extending conventional technology adoption frameworks beyond efficiency and profitability outcomes toward sustainability and inclusivity objectives. The findings also provide several policy implications. First, governments should prioritize investments in digital infrastructure, particularly in rural and underserved regions, to reduce structural barriers to technology adoption among MSMEs. Second, policymakers should implement digital literacy and managerial upskilling programs that strengthen the ability of MSME owners to convert technological resources into sustainable business capabilities. Third, regulatory frameworks should promote responsible platform governance, data protection, and fair commission structures to ensure that digital ecosystems distribute value equitably among market participants. Finally, development agencies and financial institutions should integrate Corporate Digital Responsibility principles into MSME support programs to encourage responsible and inclusive digital transformation. This study also addresses the urgency highlighted in the introduction regarding the risk that digital transformation may widen socio-economic inequalities rather than reduce them. The evidence suggests that without responsible governance mechanisms and adequate institutional support, digitalization can reinforce existing disparities in access, capabilities, and economic opportunities. Therefore, inclusive growth should be considered a strategic governance outcome rather than an automatic consequence of technology adoption. A notable limitation of this review is the geographical concentration of the selected literature. More than half of the reviewed studies were conducted in urban and digitally advanced regions of Asia and Europe, while empirical evidence from rural, remote, and low-connectivity areas remains relatively scarce. This imbalance is not solely a result of the review process but also reflects publication trends within major academic databases, where research from developing and peripheral regions is underrepresented. Consequently, the findings should be interpreted with caution when applied to highly marginalized MSME contexts. Future research should empirically test the proposed conceptual model using longitudinal and cross-country datasets, investigate the role of Corporate Digital Responsibility in different institutional environments, and develop localized indicators for measuring inclusive digital transformation among MSMEs. Such efforts are essential to ensure that digital technologies function not merely as instruments of economic growth but as drivers of equitable and sustainable development.

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