# Public Report – Literature Review

# Part 1 – Planning the Literature Review

## 1.1 Introduction and Rationale for the Thematic Choice

Generative Artificial Intelligence (GenAI) represents a technological transformation with significant potential to reshape social and productive dynamics. However, while its adoption is rapidly advancing in developed countries, the same is not true in emerging economies, where the technological, regulatory, and socioeconomic realities are deeply distinct. This divergence requires a more contextualized analysis, as replicating solutions designed for developed contexts may not generate the same benefits or, worse, may deepen existing inequalities. Therefore, this literature review is based on the observation that the academic literature on GenAI offers little attention to the challenges faced by businesses and institutions in low- and middle-income countries. This justifies the need to map obstacles, identify opportunities, and propose practical and context-specific paths for the effective and ethical adoption of GenAI in these settings.

## 1.2 General and Specific Objectives

The main objective of this research is to understand how generative artificial intelligence is being adopted by companies in emerging economies, investigating the social, cultural, and technological barriers that hinder its implementation, and proposing strategic and policy recommendations for its responsible application.

The specific objectives are structured to allow a broad yet focused analysis of the various elements involved in this process:

- Identify social, cultural, economic, and regulatory barriers to the adoption of GenAI;
- Analyze the perceptions of managers, business leaders, and experts regarding the risks and benefits of this technology;
- Propose practical, adaptable, and replicable recommendations to support the ethical and effective adoption of GenAI in strategic sectors.

## 1.3 PICOC Structure of the Research

The PICOC structure was used to define the essential elements of the systematic review. The target population includes managers and decision-makers in small and medium-sized enterprises in emerging economies. The intervention analyzed is the adoption of GenAI in business environments. The comparison involves companies that have already implemented the technology versus those still in the planning phase. The expected outcome is the

identification of strategies, obstacles, and best practices. The context is emerging economies in Latin America, Africa, Asia, and Eastern Europe.

### 1.4 Research Questions

The review was guided by the following questions, formulated to direct article analysis and structure the theoretical framework:

- How are companies in emerging economies adopting GenAI, and what are the main challenges and opportunities?
- What social, economic, and cultural factors influence the adoption of GenAI?
- What are the perceived barriers by managers during the implementation process?
- What effective practices can be identified to promote GenAI adoption?
- How do local regulations and public policies influence this implementation?

### 1.5 Search Strategy and Selection Criteria

The search string combined key terms related to generative AI, emerging markets, and business adoption:

> ("Generative AI" OR "Artificial Intelligence" OR "Machine Learning")
> AND ("Emerging Markets" OR "Developing Countries" OR "Low-income Economies")
> AND ("Business Adoption" OR "Enterprise" OR "Economic Impact" OR "Barriers")

This string was tested and refined using databases such as Scopus, Web of Science, IEEE Xplore, and Google Scholar to ensure a good balance between breadth and specificity.

**Inclusion Criteria**:

- Articles published between 2018 and 2024 focusing on the adoption of GenAI in business settings in developing countries;
- Studies discussing organizational, social, or economic impacts;
- Research with qualitative, quantitative, or integrative review approaches.

**Exclusion Criteria**:

- Purely technical studies on AI modeling without business application;
- Research focused on a single sector without broader implications;
- Studies exclusive to developed countries.

### 1.6 Review Methodology

The review followed PRISMA guidelines. After establishing the review protocol, a three-stage screening was conducted (title, abstract, and full text), followed by a critical analysis of the selected articles. Data synthesis was done through content analysis and thematic categorization.

### 1.7 Methodological Foundation

A qualitative approach was chosen due to the complex nature of the investigated phenomenon. GenAI is not merely a technical tool but a driver of social, economic, and institutional transformation. Thus, it is essential to understand how stakeholders interpret, adapt to, or resist the introduction of this technology within their specific contexts.

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## Part 2 – Integrated Conceptual Analysis of the Review

### 2.1 Structure of the Analysis

The analysis of selected articles was organized into four thematic blocks that directly align with the research objectives and questions:

- Current state of GenAI in developing countries;
- Barriers to GenAI adoption;
- Strategies and best practices observed;
- Role of regulation and public policies.

This structure helped organize accumulated knowledge and reveal patterns, trends, and gaps in the literature.

### 2.2 Block 1: Current State of GenAI in Emerging Economies

Authors such as Nir Kshetri (2020) and Folorunso et al. (2024) offer detailed overviews of GenAI maturity in developing countries. Kshetri shows that although AI is already successfully applied

in sectors such as agriculture and health, major limitations remain in infrastructure, technical capacity, and public policy. Folorunso et al. propose a comprehensive AI governance framework focused on five pillars: digital infrastructure, AI literacy, ethical regulation, economic incentives, and international cooperation.

### 2.3 Block 2: Barriers to GenAI Adoption

Studies by Thakkar (2024) and Kumar et al. (2019) highlight operational, cultural, and technical challenges that hinder the adoption of GenAI in emerging economies. Key obstacles include high implementation costs, low trust in technology, lack of skilled workforce, and unclear demonstration of tangible benefits.

### 2.4 Block 3: Strategies and Best Practices

Thakkar (2024) presents initiatives from fintechs like Tala (Kenya) and Kaleidofin (India), which implemented GenAI-based solutions to provide microcredit and financial services tailored to local contexts. Kumar et al. (2019) demonstrate how AI can personalize customer and marketing experiences, positively impacting customer retention.

### 2.5 Block 4: Regulation and Public Policies

The literature highlights that the absence of appropriate regulation can hinder innovation or create ethical risks. On the other hand, well-structured regulatory environments — such as the regulatory sandboxes adopted in India and Brazil — have proven effective in testing innovations safely and accelerating GenAI adoption.

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## Part 3 – Answers to the Research Questions and Theoretical Foundations

The literature review allowed for partial answers to the five guiding research questions:

**RQ1 – Adoption and Challenges**:
GenAI is primarily used by startups and fintechs. Progress is uneven across countries and sectors. Opportunities include automation, financial inclusion, and personalized marketing. Barriers include weak infrastructure, lack of data, and shortage of qualified professionals.

**RQ2 – Social, Economic, and Cultural Factors**:
Resistance to GenAI manifests through distrust, low digital literacy, lack of localized data, and change aversion. Organizational culture is a key determinant of initiative success.

**RQ3 – Manager-Perceived Barriers**:
Beyond structural barriers, managers highlight the difficulty in demonstrating ROI, the absence of long-term strategy, and lack of institutional support.

**RQ4 – Effective Practices**:
Successful use cases suggest GenAI adoption should be incremental, aligned with public policies, and based on local evidence. Creating innovation hubs and public-private partnerships is a relevant trend.

**RQ5 – Public Policies and Regulations**:
Most promising experiences occur in flexible and adaptive regulatory environments (e.g., sandboxes). The importance of data protection policies and support for applied research is also emphasized.

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## Conclusion

The literature demonstrates that generative artificial intelligence has strong transformative potential. However, its implementation in emerging economies requires strategic planning, inclusive policies, and context-adapted solutions. GenAI can act as both an engine of digital inclusion and a mechanism of exclusion — depending on how it is governed, applied, and localized.