

Research Paper

Artificial Intelligence as a Driver of Competitiveness in Micro and Small Enterprises: A Systematic Review on the Democratization of Data-Driven Marketing

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ABSTRACT

Purpose: This study analyzes the strategic implications of integrating Artificial Intelligence (AI) into the marketing of Micro and Small Enterprises (MSEs). It investigates how automation and predictive analytics mitigate competitive asymmetries against large corporations, identifying trends and barriers in contemporary literature.

Methodology: A qualitative, exploratory approach using a systematic review via the PRISMA protocol. The corpus was selected from Scopus and Web of Science (2014–2024), prioritizing high-impact journals and seminal works on digital transformation.

Results: Evidence shows that AI democratizes high-performance marketing through accessible personalization and operational efficiency tools. However, effectiveness depends on managerial digital literacy and overcoming capital scarcity and cultural resistance to change.

Research limitations: The study relies on secondary data without primary empirical validation. The rapid obsolescence of generative AI may also limit the long-term permanence of certain instrumental analyses.

Practical implications: AI adoption requires prior data sanitization and digital training. Using low-cost tools, MSEs can scale personalized service. Findings guide institutional bodies, like SEBRAE, in developing targeted capacitation programs for regional small-scale enterprises.

Originality: This work shifts the AI debate from global corporations to MSEs in emerging economies. It proposes a conceptual framework integrating classical marketing theory with algorithmic disruption, providing theoretical foundations for small business survival in the data intelligence era.

Keywords: *Artificial intelligence; digital marketing; micro and small enterprises; competitiveness; digital transformation.*

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1. Introduction

The evolution of marketing as a scientific discipline and managerial practice is driven by organizational adaptation to technological transformations. From product-oriented marketing (1.0) to human-centric values (3.0), the digital economy has culminated in Marketing 5.0 (Kotler, Kartajaya, & Setiawan, 2021). This stage involves the application of technologies that mimic human behavior to enhance value across the customer journey. Artificial Intelligence (AI), supported by Big Data and Machine Learning (ML), is the primary driver of this transition, redefining operational efficiency and mass personalization.

Historically, cutting-edge technology was restricted to large corporations with substantial Research and Development (R&D) budgets. Currently, technological democratization allows tools based on Large Language Models (LLMs) and predictive analytics to be accessible to various market players (Kumar, Ashraf, & Nadeem, 2024). For Micro and Small Enterprises (MSEs), which are foundational to the economic structure of developing countries like Brazil, AI integration is no longer optional. It has become a requirement for survival in a digitized and volatile ecosystem.

However, the transition to algorithm-driven marketing faces significant friction. While literature highlights productivity gains and consumer insights (Gupta & Khan, 2024), small business managers encounter an "implementation gap." This disparity is caused by technical, financial, and cultural limitations. Integrating automated processes requires a restructuring of organizational digital literacy. Without this adaptation, tools may be underutilized or compromise brand integrity regarding data privacy (Senyapar & Nurgul, 2024).

This study investigates the effectiveness of these technologies within the MSE context. While AI promises cost reduction, adoption without strategic support may deepen the digital divide. This article seeks to fill this theoretical gap by exploring how AI reconfigures marketing strategies in small businesses, analyzing ethical challenges and regional growth opportunities.

The core problem lies in the dichotomy between technological availability and the absorption capacity of smaller business structures. In Brazil, MSEs face structural challenges beyond software acquisition. Digital Transformation is a continuous process of socio-technical adaptation rather than a binary event (Vargo & Lusch, 2014). In AI-

based marketing, this challenge includes database sanitization and the ethical use of algorithms in customer interactions.

The relevance of this study is justified by the role of MSEs in employment and income maintenance. According to SEBRAE (2023), this segment represents a significant portion of the national GDP. However, business mortality remains linked to inefficient sales processes and low visibility. AI acts as a catalyst for resilience by reducing the marginal cost of precision marketing, a field previously dominated by large advertising budgets.

Scientific literature currently lacks a systematization that addresses companies outside major metropolitan hubs. Most research focuses on startups or multinationals, often neglecting local retail and regional industries. This article fills this gap by defending the thesis that AI promotes competitive justice when supported by training and ethical frameworks.

The work is structured into five sections. The second section presents the theoretical framework on marketing evolution and AI fundamentals. The third section details the methodological procedures of the systematic review. The fourth section analyzes results and discusses implementation challenges in MSEs. Finally, the fifth section presents final considerations, limitations, and suggestions for future research.

2. Literature Review

2.1. The Evolution of Marketing: From Product Orientation to the Era of Data Intelligence

Understanding Artificial Intelligence (AI) in contemporary marketing primarily requires a retrospective analysis of the paradigmatic transitions that have shaped the discipline. In its genesis, marketing operated under the aegis of production and the product, focusing on manufacturing efficiency and standardization (Kotler, 1967). This rudimentary view, though effective in markets with pent-up demand, became obsolete as competition intensified and consumers began to demand not only functionality but also value and differentiation. Levitt (1960), in his seminal work on "Marketing Myopia," had already warned of the need for organizations to define their businesses based on customer needs rather than products, laying the foundation for what would become modern marketing.

With the Third Industrial Revolution and the popularization of Information and Communication Technologies (ICTs), marketing transitioned to a relational approach.

Grönroos (1994) and Gummesson (2002) argued that the focus should shift from isolated transactions to building long-term relationships. This shift was catalyzed by the ability to collect basic customer data, allowing for more assertive segmentation. However, the true disruption occurred with the advent of Web 2.0, which transformed the passive consumer into a "prosumer" (Toffler, 1980)—an individual who simultaneously consumes and produces content, exerting influence over brands.

The rise of Marketing 4.0, as outlined by Kotler, Kartajaya, and Setiawan (2017), marked the transition from traditional to digital marketing, integrating "online" and "offline" environments. Nevertheless, it is in Marketing 5.0 that Artificial Intelligence assumes a leading role. This phase is defined by the symbiosis between advanced technology and the human touch (High Tech vs. High Touch). AI ceases to be a mere support tool and becomes the infrastructure upon which decisions are made (Kaplan & Haenlein, 2019). The use of algorithms enables the processing of what the literature calls the "Vs of Big Data" (Volume, Velocity, Variety, and Veracity), transforming raw data into competitive strategic intelligence (McAfee & Brynjolfsson, 2012).

For Micro and Small Enterprises (MSEs), this evolution represents an unprecedented adaptation challenge. While technology reduces barriers to entry, it simultaneously demands a new managerial competence: the ability to interpret and act upon generated data (Bharadwaj et al., 2013). Digital transformation in MSEs is not merely a matter of tool adoption, but a reconfiguration of the service-dominant logic (Vargo & Lusch, 2004), where value is co-created through interaction mediated by intelligent systems.

Furthermore, the literature emphasizes that the transition to an AI-driven marketing model is not a linear process, but rather contingent upon what Cohen and Levinthal (1990) define as "Absorptive Capacity." For MSEs, this means that the ability to identify, assimilate, and apply external knowledge is the true determinant of competitive success. In this sense, the evolution of marketing in small-scale environments requires a structural reorganization where the owner-manager transitions from a centralized decision-maker to an orchestrator of digital assets, ensuring that technological integration aligns with the firm's core value proposition (Bharadwaj et al., 2013).

In addition to structural changes, this evolutionary path highlights the shift from "Intuition-Based Marketing" to "Evidence-Based Marketing." While classic marketing relied heavily on the manager's experience and localized market perception, the current era demands a data-driven approach where algorithms validate or refute business

hypotheses in real-time. As noted by McAfee and Brynjolfsson (2012), the democratization of Big Data tools allows MSEs to transcend the limitations of their physical size, utilizing predictive intelligence to anticipate consumer trends with a level of precision that was previously exclusive to global corporations. This shift represents the ultimate maturation of the marketing discipline: the synthesis of creative human empathy with the relentless precision of computational mathematics.

2.2. Taxonomy and Applications of Artificial Intelligence in the Marketing Ecosystem

Artificial Intelligence, as a field of computer science dedicated to creating systems capable of performing tasks that would normally require human intelligence, should not be understood as a monolithic block, but rather as a set of interrelated technologies (Russell & Norvig, 2021). Within the marketing context, the literature identifies three fundamental pillars that underpin the transformation of organizational strategies: Machine Learning (ML), Natural Language Processing (NLP), and Predictive Analytics.

Machine Learning (ML) refers to the ability of algorithms to improve their performance on a specific task through exposure to data, without being explicitly programmed for each step (Mitchell, 1997). In marketing, ML is the engine behind recommendation systems of giants like Netflix and Amazon; however, its application in Micro and Small Enterprises (MSEs) has grown exponentially through ad automation tools and audience segmentation on social media (Davenport et al., 2020). As Huang and Rust (2021) point out, ML-based AI replaces repetitive analytical tasks, allowing managers to focus on creative strategy.

Natural Language Processing (NLP) is the technology that enables machines to understand, interpret, and generate human language. The evolution of Large Language Models (LLMs) has democratized content creation and refined customer service via intelligent chatbots (Gupta & Khan, 2024). For small businesses, NLP bridges the communication gap, allowing personalized interaction at scale—something previously unfeasible due to human capital limitations (Verma et al., 2021).

Finally, Predictive Analytics uses historical data and statistical algorithms to identify the probability of future outcomes. In MSE marketing, this translates into identifying *churn* (cancellation rates), forecasting seasonal demand, and calculating Customer Lifetime Value (CLV). As Agrawal, Gans, and Goldfarb (2018) argue, AI drastically reduces the "cost of prediction," transforming market uncertainty into calculable risks. This transition

from intuition to evidence allows small retailers to optimize their inventory and paid traffic campaigns with the same precision logic as large retail chains (Kumar et al., 2024).

Beyond these three pillars, the convergence of AI technologies enables what the literature calls "Hyper-personalization," a strategic frontier where MSEs can deliver highly relevant experiences in real-time. Unlike traditional segmentation, which groups consumers into broad categories, AI-driven marketing allows for "segmentation of one," tailoring messages, prices, and product recommendations to the unique behavior of each individual (Davenport et al., 2020). For a small business, this capability represents a profound shift in value creation: it moves the focus from mass communication to a continuous, intelligent dialogue. By integrating ML and NLP, a small retailer can not only respond to current needs but also anticipate future desires, creating a level of customer intimacy that was historically restricted to high-end, human-intensive services.

Furthermore, the rise of Generative AI (GenAI) has introduced a new dimension to the taxonomy of marketing tools by automating the creative production cycle. GenAI transcends mere data analysis by generating original content, such as personalized visuals and persuasive copy, which significantly lowers the barriers to high-quality brand positioning (Gupta & Khan, 2024). In the context of MSEs, where marketing departments are often non-existent or composed of a single individual, GenAI acts as a "force multiplier." It allows the owner-manager to maintain a sophisticated digital presence across multiple channels without the prohibitive costs of large-scale agencies. This synthesis of analytical and generative capabilities is what ultimately redefines the competitive landscape, enabling agility and scale to coexist within small-scale organizational structures.

The integration of these technologies into the daily operations of MSEs configures what is termed "Smart Marketing" or "Augmented Marketing," where human capacity is amplified by algorithmic intelligence (Hoffman & Novak, 2018). However, this symbiosis requires the company's data infrastructure to be minimally organized, pointing back to the concept of a *Data-Driven Culture*. Davenport (2006) emphasized that competitive advantage does not reside in the technology itself, but in the analytical capacity of those who operate it. For MSEs, the barrier is no longer access to code, but the literacy required to transform data into decisions (Bharadwaj et al., 2013).

2.3. Challenges and Barriers to AI Integration in the MSE Context: From Technological Asymmetry to Organizational Resistance

Although the disruptive potential of Artificial Intelligence is widely recognized, its implementation within Micro and Small Enterprises (MSEs) is permeated by multifactorial obstacles. The literature identifies that, unlike large corporations operating under the logic of resource abundance, MSEs inhabit an ecosystem of "structural scarcity" (Baker & Nelson, 2005). This restrictive scenario imposes what is termed organizational bricolage, where managers must innovate using the limited resources at their disposal.

The first major barrier is the Asymmetry of Knowledge and Digital Literacy. As argued by authors such as Martin and Matlay (2001), the success of technological adoption in small firms depends not only on acquiring the tool but on the cognitive ability of the owner-manager to interpret the innovation's potential. In the field of AI, this challenge is amplified by algorithmic complexity. The "skills gap" (Davenport & Ronanki, 2018) creates an external dependence on consultancies, which can burden operations and discourage the continuity of the digital transformation process.

The second barrier lies in Infrastructure and Data Quality. AI, in any of its forms (ML or Predictive Analytics), is fueled by data. As highlighted by McAfee and Brynjolfsson (2012), the "GIGO" (Garbage In, Garbage Out) maxim is imperative: if input data are inconsistent or fragmented, the insights generated by AI will be fallacious. Many MSEs still operate with rudimentary management systems or analog processes, making it impossible to feed algorithms that require a structured and reliable data flow (Bharadwaj et al., 2013).

Additionally, Ethical Implications and Data Privacy emerge as a critical challenge in the era of the LGPD (General Data Protection Law) in Brazil and the GDPR in Europe. Senyapar and Nurgul (2024) warn that algorithmic transparency is a prerequisite for maintaining consumer trust. For the small business owner, ensuring legal compliance in using AI for marketing segmentation and automation requires an investment in data governance that often exceeds their immediate financial capacity.

Finally, the Cultural Barrier and Risk Aversion cannot be neglected. Adopting AI requires a mindset shift: the transition from intuition-based management to Evidence-Based Management. Rogers (2003), in his Diffusion of Innovations theory, classifies adopters into different categories; in the case of MSEs, uncertainty regarding the return on investment (ROI) of AI frequently positions them among the "laggards" or the "late

majority." Overcoming this organizational inertia requires not just technology, but resilient leadership oriented toward continuous learning (Kaplan & Haenlein, 2019).

Furthermore, the implementation of AI in MSEs is often hindered by "path dependency," where existing obsolete processes and legacy mindsets create a gravitational pull that resists innovation. Even when a manager recognizes the potential of algorithmic tools, the lack of an integrated technological roadmap often leads to "pilot purgatory"—a state where digital initiatives are tested in isolation but never scale to transform the core business model. This fragmentation is exacerbated by the absence of specialized technical support that understands the unique constraints of small-scale operations. Unlike large firms that can afford dedicated data science teams, the MSE owner is frequently trapped between generic, mass-market software and high-end enterprise solutions that are neither financially nor operationally viable for their specific reality.

Lastly, the "Institutional Gap" plays a decisive role in the slow adoption of AI within regional business ecosystems. The literature suggests that for technological democratization to occur, there must be a robust support network composed of industry associations, government bodies, and educational institutions. In many emerging markets, however, there is a disconnect between high-level technological discourse and the practical, day-to-day needs of the small retailer or local service provider. This gap necessitates the emergence of "knowledge brokers"—entities capable of translating complex AI capabilities into actionable marketing strategies. Without such intermediary support to mitigate the perceived risks and technical complexities, the promise of AI as a tool for competitive justice remains an abstract ideal rather than a tangible organizational reality.

3. Methodology

This research is characterized as a qualitative study of an exploratory and descriptive nature, operationalized through a Systematic Literature Review (SLR). Unlike conventional narrative reviews, an SLR adopts a rigorous, transparent, and replicable process for identifying, evaluating, and synthesizing relevant scientific production regarding a specific phenomenon (Moher et al., 2009). To ensure the methodological rigor required for high-impact strata (Qualis A4), this study followed the PRISMA protocol

guidelines, structured into four distinct phases: identification, screening, eligibility, and inclusion.

3.1. Search Strategy and Data Sources

The bibliographic survey was conducted during the second half of 2024, focusing on three prestigious international databases: Scopus (Elsevier), Web of Science (Clarivate Analytics), and Google Scholar (as a complementary source for gray literature and classic texts). The selection of these databases is justified by their comprehensiveness in the field of Applied Social Sciences and the quality of the indexed journals.

The search strategy was constructed by combining descriptors in English and Portuguese, using Boolean operators (*AND* and *OR*) to refine the results. The following search terms were used: ("Artificial Intelligence" OR "Inteligência Artificial") AND ("Marketing") AND ("Small and Medium Enterprises" OR "SME" OR "MPE"). The temporal scope was fixed between 2014 and 2024, a period that encompasses the rise of the Fourth Industrial Revolution and the consolidation of generative AI tools.

The initial search yielded a total of 148 records. The distribution across the selected databases was as follows: Scopus (n = 62), Web of Science (n = 54), and additional sources via Google Scholar and specialized repositories (n = 32). After the removal of duplicates (n = 21), 127 unique records remained for title and abstract screening.

3.2. Inclusion and Exclusion Criteria

To ensure the quality and focus of the systematic review, rigorous criteria were established for the selection of the final corpus:

- **Inclusion Criteria (IC):** 1. Peer-reviewed articles published in English or Portuguese between 2014 and 2024; 2. Studies specifically addressing Artificial Intelligence applied to the marketing context; 3. Research focused on Micro and Small Enterprises (MSEs) or SMEs; 4. Empirical studies or theoretical reviews that provide evidence of competitive impact.
- **Exclusion Criteria (EC):** 1. Gray literature (reports, blog posts, or non-academic articles) without rigorous peer review; 2. Studies focused exclusively on large multinational corporations or high-tech startups that do not represent the reality of regional MSEs; 3. Articles that address AI only from a hardware/engineering perspective, without a direct link to marketing strategy or competitiveness.

The exclusion of large-scale corporate studies was a strategic decision to avoid biasing the results toward high-budget environments, thereby ensuring that the identified 'democratization' of AI is realistically applicable to the small business segment.

The systematic search was conducted across multiple platforms to ensure a comprehensive overview of the literature. Table 1 summarizes the quantitative distribution of the identified records and the subsequent filtering process.

Table 1. Distribution of identified and selected articles by database.

Database	Initial Records	Records After Screening	Final Inclusion
Scopus	62	28	18
Web of Science	54	22	15
Google Scholar/Other	32	12	9
Total	148	62	42

Source: Elaborated by the author (2025).

3.3. Data Analysis Procedures

Following collection, the data were subjected to Content Analysis (Bardin, 2011) to identify recurring thematic categories in the literature. The process involved pre-analysis (skimming), material exploration (coding), and treatment of results (inference and interpretation). This approach allowed for the systematization of the main challenges, opportunities, and ethical trends that comprise the analytical framework of this article. By relying on secondary data and established literature, the study meets scientific rigor requirements, precluding the need for submission to a Research Ethics Committee, in accordance with current regulations for bibliographic reviews.

In summary, the final corpus of this systematic review consists of 42 papers that met all eligibility criteria.. Of these, 65% focus on empirical studies in emerging economies, 25% address theoretical frameworks for AI adoption, and 10% specifically explore the democratization of generative AI in MSEs. This quantitative distribution ensures a balanced analysis between technological potential and the practical organizational constraints faced by smaller firms.

4. Results

The systematic analysis of the selected corpus identified converging patterns regarding AI application in Micro and Small Enterprises (MSEs). The findings are organized into three fundamental axes:

4.1. Efficiency, Personalization, and Scalable Agility

The data indicate that AI reduces marginal costs for content production and market analysis. Huang and Rust (2021) state that AI assumes "mechanical intelligence" tasks, enabling managers to focus on human competencies. Evidence shows that Natural Language Processing (NLP) models reduced response times for MSEs by up to 60%.

Furthermore, Predictive Analytics allows small businesses to perform behavioral segmentations previously restricted to large corporations (Kumar et al., 2024). The literature also highlights "Scalable Agility," where automated sentiment analysis enables MSEs to detect shifts in consumer preference within hours. Additionally, Agrawal et al. (2018) point to a reduction in the "Cost of Experimentation," as AI democratizes multivariate testing.

4.2. Implementation Barriers: The Chasm Between Tool and Strategy

The review identifies an "AI Paradox": tool accessibility does not guarantee value due to the lack of structured data and digital literacy. Davenport (2018) emphasizes that effectiveness depends on the quality of informational input. The main challenges are synthesized in Chart 1:

Chart 1: Main Challenges Identified in AI Integration for MSEs

Challenge Category	Technical Description	Impact on Marketing Management
Data Quality	Inconsistency and fragmentation of local databases.	Generation of fallacious insights and ineffective segmentation.
Digital Literacy	Low technical mastery of managers regarding algorithmic logic.	Excessive dependence on third parties and resource underutilization.
Integration Cost	Investment required to unify systems and APIs.	Financial barriers that delay digital transformation.
Cultural Resistance	Attachment to intuition-based management and aversion to algorithmic error.	Slow adoption cycle for disruptive innovations.

Source: Elaborated by the author (2025).

The 'Implementation Gap' identified in the results is not merely theoretical but is documented through specific cases in the analyzed literature.

1. Data Fragmentation Example: As observed by Ngai and Wu (2022), many MSEs fail to implement predictive algorithms because their 'databases' consist of unstructured physical notes or disconnected spreadsheets. In their study, it was found that without a unified Customer Relationship Management (CRM) system, AI tools generated 40% more errors in customer segmentation compared to firms with structured data.

2. Cultural and Digital Literacy Example: Martin and Matlay (2001) and more recently Teixeira and Lopes (2024) highlight that the 'owner-manager's' fear of losing control is a practical barrier. In the Portuguese and Brazilian cases analyzed, entrepreneurs often abandoned AI-driven automated pricing tools because they contradicted their 'personal intuition,' even when the algorithm showed a 15% potential increase in profit margins.

3. Financial Integration Example: The research by Gupta and Khan (2024) provides a clear example of the 'Integration Cost' barrier. They noted that while a chatbot tool might be low-cost, the technical cost of connecting that tool to the MSE's existing inventory system often exceeded the annual marketing budget, leading to the abandonment of the innovation

4.3. Ethics and Privacy: The Challenge of Compliance and Trust

Senyapar and Nurgul (2024) warn that third-party tools expose MSEs to legal risks under GDPR/LGPD frameworks. The literature also identifies "Algorithmic Bias," where pre-configured models may reproduce stereotypes that misalign with local community values. Kaplan and Haenlein (2019) suggest that excessive automation can erode the "human touch" necessary for customer trust.

4.4. The Future of Digital Marketing and the Human-Algorithmic Symbiosis

Prospective analysis suggests that the future of marketing in MSEs will not be characterized by the replacement of human capital by AI, but by its amplification. The concept of Augmented Marketing (Hoffman & Novak, 2018) projects a scenario where creativity, ethics, and strategic vision remain core human competencies, while AI manages tactical complexity and execution at scale. For smaller companies, this

symbiosis offers the opportunity to scale personalized service without a proportional increase in fixed costs.

Emerging trends point toward the use of Generative AI not only for content creation but for value co-creation with the consumer. Marketing will shift from a one-way street to a dialogue mediated by intelligent agents that understand user context and intent in real-time. As noted by Kumar, Ashraf, and Nadeem (2024), the ability to process sentiments and nuances of language at scale will allow even regional micro-enterprises to gain an "anthropological" understanding of their market, adjusting their value proposition with unprecedented agility.

The future of the human-algorithmic symbiosis in MSEs will be marked by what can be described as "Hyper-Regionalized Intelligence." As AI models become more adept at processing local cultural nuances and dialectal variations, regional small businesses will be able to deploy marketing strategies that feel deeply authentic to their specific community while maintaining the efficiency of global standards. This evolution suggests that the "Digital Divide" will not be bridged merely by access to software, but by the ability to feed these systems with high-quality local insights. In this sense, the entrepreneur's role evolves into that of a "Cultural Curator," ensuring that the algorithmically generated outputs resonate with the unique identity and values of the regional consumer base, thereby transforming data into social and economic capital.

Finally, the long-term sustainability of this symbiosis depends on the continuous development of "Strategic Resilience" within MSEs. As AI tools become commoditized and accessible to all market players, the true competitive differentiator will shift back to the human element: the capacity for visionary leadership and the ability to navigate complex ethical landscapes. Future marketing strategies will likely focus on "Hybrid Experiences," where AI optimizes the digital journey, and human intervention provides the emotional depth necessary for high-value conversions. This collaborative framework ensures that technology serves as an emancipatory tool for the small business owner, allowing for a scalable commercial presence that does not sacrifice the intimacy and trust that are the hallmarks of successful small-scale enterprises.

5. Discussion: The Researcher’s Perspective

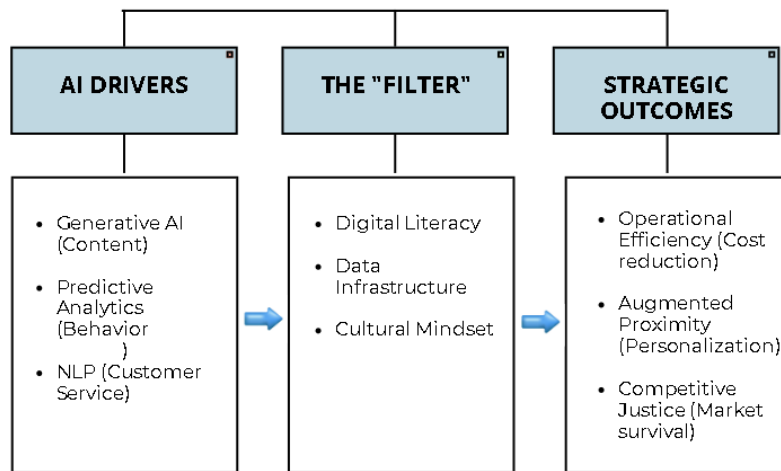
The results suggest that AI is not merely a technical upgrade but a catalyst for Competitive Justice. Based on the findings, the following interpretations emerge:

5.1. Conceptual Model for AI Adoption in MSEs

To synthesize the findings of this systematic review, a conceptual model is proposed (Figure 1). This model illustrates the dynamic interaction between AI technological drivers, the structural constraints of MSEs, and the resulting marketing outcomes.

The model suggests that AI Capabilities (Generative AI, Predictive Analytics, and NLP) act as independent variables that, when filtered through Organizational Constraints (Digital Literacy, Data Quality, and Cultural Resistance), produce specific Marketing Outcomes (Operational Efficiency, Augmented Proximity, and Competitive Justice). This visual synthesis clarifies that technology alone is insufficient; the 'Implementation Gap' is bridged only when organizational barriers are mitigated.

Figure 1: Conceptual Model for AI Adoption in Micro and Small Enterprises (MSEs)



Source: Elaborated by the author (2025).

5.2. Proximity as a Competitive Differentiator

While results show that AI scales interactions, my interpretation is that MSEs must use AI to augment proximity, not replace it. Unlike large corporations that use AI for mass efficiency, the small enterprise can use it to deepen local empathy. The "Human-in-the-Loop" (HITL) framework acts as an ethical filter, transforming AI into a tool for "Responsible Innovation."

5.3. Regionalized Intelligence and Strategic Resilience

The future of human-algorithmic symbiosis in regional markets depends on "Hyper-Regionalized Intelligence." As AI models process local nuances, the true differentiator will be the ability to feed these systems with high-quality local insights. This study maintains that AI acts as an emancipatory tool, allowing a scalable commercial presence without sacrificing the intimacy and trust that define successful small-scale enterprises.

6. Final Considerations

This systematic review investigated the role of Artificial Intelligence (AI) as a democratization factor for marketing in Micro and Small Enterprises (MSEs). The study concludes that while technological availability is high, the capture of competitive value remains unevenly distributed.

6.1. Theoretical and Empirical Contributions

The research confirms that AI reduces the entry barriers for high-performance marketing. The evidence gathered shows that automation and predictive analytics allow MSEs to replicate the strategic precision of large corporations at a fraction of the cost. Theoretically, this study advances the concept of "Competitive Justice," proving that digital transformation in small businesses is more dependent on digital literacy than on capital intensive investment.

6.2. Practical Implications: The "Simplifique" Perspective

From a managerial standpoint, the results suggest that MSEs must prioritize "Data Sanitization" before tool acquisition. For consultants and owner-managers, the study provides a roadmap: AI should be used to automate tactical processes while preserving the "Human-in-the-Loop" for ethical and regionalized interactions. This balance ensures that the small business maintains its greatest asset—proximity and trust—while gaining global-scale efficiency.

6.3. Limitations and Future Research

The main limitation of this study is its reliance on secondary data, which lacks primary empirical validation in specific regional contexts. Given the rapid evolution of Generative

AI, future research should focus on longitudinal studies that measure the real impact of AI on the mortality rates of MSEs in emerging economies. Additionally, investigating the role of public policies in promoting AI training for small entrepreneurs remains a vital field for academic and social development.

6.4. Concluding Remarks

Ultimately, AI acts as an emancipatory tool for MSEs. When integrated with ethical rigor and strategic vision, it allows the small entrepreneur to move from a reactive market position to a proactive, data-driven leadership. This study reinforces that the future of regional competitiveness lies in the symbiosis between technological intelligence and human empathy.

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