



# Digital Transformation in MSMEs: Innovation and competitiveness strategies through Artificial Intelligence

Janette Brito Laredo<sup>1</sup> , Karen Lizeth Zapata Torres<sup>2</sup> and  
Velia Verónica Ferreiro Martínez<sup>3</sup>

<sup>1</sup> Universidad Autónoma de Baja California, Universidad 14418, UABC,  
Parque Internacional Industrial Tijuana, 22390 Tijuana, B.C.  
jbritoo@uabc.edu.mx<sup>1</sup>, Karen.zapata@uabc.edu.mx<sup>2</sup>, vferreiro@uabc.edu.mx<sup>3</sup>

**Abstract.** Artificial Intelligence (AI) has transformed operations in micro, small, and medium-sized enterprises (MSMEs) by reducing costs and automating key processes. The objective of this study is to evaluate in detail the impact of implementing AI tools in the operational areas of a restaurant, specifically in administration, marketing, accounting, and social economy. A mixed-method case study methodology was employed, integrating both qualitative and quantitative techniques. Information was collected through direct observation, document analysis, and the monitoring of Key Performance Indicators (KPIs) related to the areas of administration, marketing, accounting, and social economy. This study aims to analyze how the implementation of accessible artificial intelligence tools contributes to operational efficiency, competitiveness, and sustainability in MSMEs through evidence obtained from an in-depth case study conducted in the restaurant sector. In the area of administration, the implementation of ChatGPT and Google Docs enabled the automation of operational manual creation. For marketing purposes, ChatGPT and Canva were used to create content for social media platforms. In accounting, Google Sheets and Excel automated payment recording and expense management. In the area of social economy, Google Forms and LinkedIn supported the hiring of employees from vulnerable groups and the purchase of goods from local suppliers. This case study examines how a restaurant implements basic AI tools to improve operational efficiency, customer interaction, and sustainability. The implementation of AI resulted in a 35% reduction in the time required to create operational manuals; a 41% increase in orders generated through social media; the restaurant achieved its objective of ensuring that 20% of its workforce consisted of employees from vulnerable groups; and it increased purchases from local suppliers by 30%. The findings support previous research demonstrating how AI enhances operational efficiency through innovation in social media management and the social responsibility practices of MSMEs, highlighting its potential to improve competitiveness and sustainability.

**Keywords:** Artificial Intelligence, MSMEs, Competitiveness, Digital Transformation, and Sustainability.

## 1 Introduction

Artificial Intelligence (AI) has become one of the main drivers of digital transformation, reshaping organizational processes and business models across industries. Recent advances in artificial intelligence, particularly in generative AI, have expanded the accessibility of intelligent technologies, enabling organizations to automate routine tasks, improve decision-making, optimize resource allocation, and increase operational efficiency. Consequently, AI is increasingly recognized not merely as a technological innovation but as a strategic capability that strengthens organizational competitiveness, innovation, and long-term sustainability ([1] & [2]). The implementation of AI not only reduces operating costs and enhances competitiveness through innovation but also contributes to organizational sustainability and corporate social responsibility, both of which have become fundamental drivers of long-term business resilience in digital environments ([3] & [4]).

Furthermore, MSMEs must strengthen their digital capabilities by integrating Information and Communication Technologies (ICTs), including software applications, collaborative platforms, cloud services, and intelligent automation tools that support continuous organizational growth and digital transformation [5].

Micro, Small, and Medium-Sized Enterprises (MSMEs) are among the organizations with the greatest potential to benefit from AI-driven digital transformation. Despite representing the backbone of most national economies, MSMEs frequently face structural limitations, including restricted financial resources, limited technological infrastructure, shortages of qualified personnel, and constrained access to advanced digital technologies. These challenges reduce their capacity to compete in increasingly dynamic and technology-intensive markets. Nevertheless, the adoption of Information and Communication Technologies (ICTs), cloud-based platforms, automation systems, and artificial intelligence applications has demonstrated considerable potential to improve productivity, operational flexibility, business innovation, and organizational resilience while simultaneously reducing operating costs and strengthening corporate sustainability ([5] & [4]).

Within this context, digital transformation has become a strategic priority for MSMEs worldwide. According to the Organization for Economic Co-operation and Development [6], the integration of digital technologies is essential for improving productivity, innovation capacity, and business resilience. However, digital transformation in Mexico continues to lag behind that of more technologically advanced economies due to structural barriers such as insufficient technological investment, limited digital capabilities, and unequal access to innovation ecosystems. Consequently, many MSMEs continue to experience difficulties adopting artificial intelligence despite its recognized potential to optimize operations, reduce costs, improve customer relationships, and strengthen competitiveness. Recent empirical evidence suggests that organizations integrating artificial intelligence into their operational processes demonstrate higher levels of productivity, innovation capability, and strategic adaptability than firms relying exclusively on traditional management practices ([7] & [8]).

Although the scientific literature on artificial intelligence adoption has expanded considerably in recent years, most empirical studies have focused on isolated organizational functions such as marketing, accounting, production, or customer service. Likewise, previous research has predominantly examined AI implementation from technological or managerial perspectives without simultaneously evaluating its organizational effects across multiple functional areas. Consequently, there remains limited empirical evidence regarding how accessible and low-cost generative AI tools simultaneously transform administration, marketing, accounting, and social responsibility within the same MSME, particularly in emerging economies. Furthermore, few studies have assessed these transformations using measurable operational indicators that integrate operational efficiency, digital marketing performance, financial management, and social sustainability into a single analytical framework. Addressing this gap contributes to a more comprehensive understanding of how affordable AI solutions can accelerate digital transformation and strengthen the long-term competitiveness of MSMEs [3].

The rationale for this research arises from the need to demonstrate how artificial intelligence can support MSMEs in transforming traditional business processes while improving operational efficiency, competitiveness, and profitability. Beyond process automation, AI facilitates the digitalization of internal operations, strengthens organizational learning, and promotes innovation-oriented cultures capable of responding effectively to rapidly changing business environments. Organizations that strategically integrate AI into their operational and managerial activities tend to exhibit greater agility, adaptability, and resilience, enabling them to respond more efficiently to market uncertainty while improving decision-making processes ([2], [7] & [2]). Accordingly, the main objective of this study is to analyze how the implementation of accessible artificial intelligence tools contributes to improving operational efficiency, competitiveness, sustainability, and digital transformation in a micro, small, and medium-sized enterprise (MSME) through an in-depth case study conducted in the restaurant sector.

Based on the identified research gap, this study seeks to answer the following research question: How does the implementation of accessible artificial intelligence tools influence operational efficiency, competitiveness, sustainability, and digital transformation across different functional areas of an MSME in the restaurant sector?

Accordingly, the main objective of this study is to analyze how the implementation of accessible artificial intelligence tools contributes to improving operational efficiency, competitiveness, sustainability, and digital transformation in a micro, small, and medium-sized enterprise (MSME) through an in-depth case study conducted in the restaurant sector. Specifically, the research evaluates the effects of AI adoption in the areas of administration, marketing, accounting, and social responsibility by comparing key performance indicators before and after implementation. This approach provides empirical evidence regarding the contribution of low-cost AI technologies to the digital transformation of MSMEs operating in emerging economies.

This research contributes to the literature on digital transformation in MSMEs in three principal ways. First, it provides empirical evidence regarding the implementation of accessible and low-cost artificial intelligence tools within a real business environment, an area that remains underexplored in emerging economies. Second, unlike previous studies that generally analyze isolated organizational functions, this research simultaneously evaluates the effects of AI adoption across administration, marketing, accounting, and social responsibility using measurable operational indicators. Finally, the study proposes a practical framework for the gradual implementation of artificial intelligence in MSMEs with limited technological and financial resources, offering managerial implications that may facilitate digital transformation, organizational innovation, and long-term business competitiveness. These contributions respond directly to recent calls for empirical research capable of demonstrating how affordable AI technologies can accelerate sustainable digital transformation in resource-constrained MSMEs ([3] & [4]).

## 2 Research Methodology

### 2.1 Research Design

This study adopted a mixed-methods research design using an embedded single-case study approach to analyze the organizational effects of artificial intelligence implementation within a micro, small, and medium-sized enterprise (MSME) operating in the restaurant sector [9]. The mixed-methods approach was selected because it allows the integration of qualitative and quantitative evidence, providing a comprehensive understanding of the phenomenon under investigation while combining the strengths of both methodological traditions. ([10] & [11]).

The qualitative component focused on identifying organizational changes associated with the implementation of artificial intelligence through strategic diagnosis and process analysis. Specifically, a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis was conducted to evaluate the internal and external factors influencing AI adoption and its contribution to business competitiveness [12]. The quantitative component evaluated changes in operational performance through the comparison of Key Performance Indicators (KPIs) measured before and after the implementation of artificial intelligence tools in four organizational areas: administration, marketing, accounting, and social responsibility.

According to [10] triangulation of multiple data sources strengthens the credibility and comprehensiveness of mixed-methods research by integrating complementary forms of evidence. Likewise, [13] emphasizes that methodological triangulation enhances the validity of qualitative findings because it allows researchers to examine the same phenomenon from different analytical perspectives while reducing potential methodological bias.

The case study strategy was considered appropriate because it enables an in-depth examination of a contemporary phenomenon within its real organizational context, particularly when the boundaries between the phenomenon and its environment are not clearly evident [11]. This methodological approach facilitates the analysis of

organizational processes, technological adoption, and operational improvements that cannot be adequately understood through large-scale survey designs alone.

## 2.2 Case Study Description

The study was conducted in a restaurant located in Tijuana, Baja California, Mexico, classified as a microenterprise according to the criteria established by the Mexican Ministry of Economy. The company employs between 10 and 15 workers and specializes in food preparation and local restaurant services. The restaurant was intentionally selected because it had initiated a digital transformation process through the implementation of accessible artificial intelligence tools across several functional areas, providing an appropriate context for evaluating organizational changes associated with AI adoption.

The selected case represents a typical MSME operating under financial and technological constraints commonly observed in emerging economies. Consequently, it provides an appropriate setting for examining how low-cost artificial intelligence applications can improve operational efficiency, managerial performance, competitiveness, and organizational sustainability under real business conditions.

To ensure methodological consistency, the study operationalized the research variables according to the organizational areas where artificial intelligence was implemented. The independent variable corresponds to the implementation of artificial intelligence tools, while the dependent variables measure changes in operational efficiency, competitiveness, accounting performance, and social responsibility through specific performance indicators (See Table 1).

**Table 1.** Operationalization of Research Variables.

| Variable                               | Type        | Dimension             | Indicator              | Measurement                       |
|----------------------------------------|-------------|-----------------------|------------------------|-----------------------------------|
| Artificial Intelligence Implementation | Independent | Administration        | ChatGPT, Google Docs   | Manual preparation time           |
|                                        |             | Marketing             | ChatGPT, Canva         | Followers, orders                 |
|                                        |             | Accounting            | Google Sheets, Excel   | Recording time, errors            |
|                                        |             | Social Responsibility | Google Forms, LinkedIn | Inclusive hiring, local suppliers |
| Operational Efficiency                 | Dependent   | Administration        | Time reduction         | % Improvement                     |
| Competitiveness                        | Dependent   | Marketing             | Orders generated       | % Increase                        |
| Financial Performance                  | Dependent   | Accounting            | Recording errors       | % Reduction                       |
| Sustainability                         | Dependent   | Social Responsibility | Local purchasing       | % Increase                        |

Note. Own elaboration.

### 2.3 Data Collection

Data were collected through direct observation, documentary analysis, administrative records, and secondary information sources. [9] Indicate that combining different data collection techniques contributes to richer empirical evidence and improves the overall quality of organizational research. Similarly, [14] argues that using multiple sources of evidence increases the transparency and credibility of qualitative inquiry by facilitating methodological triangulation.

First, direct observation was carried out throughout the implementation process to examine organizational routines, operational workflows, and employee interactions with the artificial intelligence tools introduced in the restaurant. This technique allowed the researchers to document procedural changes and identify improvements in daily operations.

Second, documentary analysis was performed using internal administrative records, accounting reports, operational manuals, and digital marketing reports generated before and after the implementation of AI applications. These documents provided objective evidence for evaluating changes in organizational performance.

Third, administrative records generated through the digital tools were systematically reviewed to monitor operational indicators related to administration, marketing, accounting, and social responsibility. These records included information on manual preparation time, customer interaction through social media, accounting processing times, financial records, inclusive hiring practices, and purchases from local suppliers.

Finally, quantitative information was collected through the periodic monitoring of Key Performance Indicators (KPIs). Performance indicators were measured over periods ranging from six to twelve months, allowing comparisons between organizational performance before and after AI implementation. The integration of qualitative observations and quantitative indicators provided a comprehensive assessment of the organizational effects associated with artificial intelligence adoption.

Therefore, Table 2 presents the Key Performance Indicators (KPIs) used to evaluate the impact of implementing artificial intelligence tools across the restaurant's different functional areas. These indicators were selected for their ability to measure changes in operational efficiency, customer interaction, financial management, and corporate social responsibility. The evaluation was carried out by comparing the results obtained before and after the adoption of the digital tools, considering monitoring periods ranging from six to twelve months. This set of indicators made it possible to objectively quantify the benefits generated by artificial intelligence and analyze its contribution to the competitiveness, sustainability, and digital transformation of the MSME under study.

**Table 2.** Key Performance Indicators for Evaluating the Impact of Artificial Intelligence in the Restaurant.

| Area           | Indicator                             | Measurement Method          | Period    |
|----------------|---------------------------------------|-----------------------------|-----------|
| Administration | Manual preparation time               | Before and after comparison | 6 months  |
| Marketing      | Social media followers and orders     | Digital metrics             | 6 months  |
| Accounting     | Recording time and error rate         | Accounting records          | 12 months |
| Social Economy | Inclusive hiring and local purchasing | Administrative records      | 12 months |

Note. Own elaboration.

## 2.4 Data Analysis

The collected data were analyzed using complementary qualitative and quantitative procedures consistent with the mixed-methods research design. Qualitative information obtained through direct observation and documentary analysis was examined using thematic content analysis, allowing the identification of organizational changes associated with the implementation of artificial intelligence across the administrative, marketing, accounting, and social responsibility areas. Subsequently, a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis was conducted to evaluate the internal capabilities and external conditions influencing AI adoption and organizational competitiveness.

Qualitative information was analyzed through thematic categorization supported by SWOT analysis, whereas quantitative information was evaluated using descriptive comparisons of Key Performance Indicators before and after AI implementation. Miles et al. [15] Argue that qualitative data analysis should systematically identify patterns and relationships across multiple sources of evidence, while descriptive quantitative analyses facilitate the interpretation of organizational performance without requiring inferential statistical procedures in single-case studies.

The credibility of the findings was strengthened through methodological triangulation by integrating qualitative and quantitative evidence obtained from different organizational sources [11]. States that triangulation enhances construct validity by corroborating information collected through multiple techniques. Similarly, Nowell et al. [16] Argue that methodological rigor in qualitative research depends on transparency, consistency, and systematic analytical procedures throughout the research process.

## 3 Results

This section presents the findings obtained from the implementation of accessible artificial intelligence tools across the four organizational areas analyzed in the restaurant under study: administration, marketing, accounting, and social responsibility. The results are organized according to the operational dimensions defined in the research methodology and are supported by the comparison of Key

Performance Indicators (KPIs) measured before and after AI implementation. This structure facilitates the assessment of organizational changes associated with digital transformation while maintaining consistency with the research objectives and variables established in the methodological framework.

In the administrative area, AI tools were implemented to improve the creation and updating of operational manuals. ChatGPT was used to generate draft content related to operational procedures, such as food preparation, staff management, and safety protocols. Through Google Docs, text correction and manual organization were automated, improving both the writing quality and overall presentation. In addition, Grammarly was used to ensure clarity and grammatical accuracy. This process made it possible to reduce the time required to create the manuals while keeping them continuously updated, thereby optimizing the restaurant's administrative management.

### **3.1 Characterization of the Company Under Study**

The case study was conducted in a restaurant classified as a microenterprise within the gastronomic sector, located in the city of Tijuana, Baja California. The organization has an estimated workforce of 10 to 15 employees and is dedicated to the preparation and sale of food for local consumption. As part of its digital transformation process, the company implemented low-cost artificial intelligence and automation tools aimed at strengthening administrative management, digital marketing, accounting control, and social responsibility practices. The case was selected due to the company's willingness to adopt emerging technologies and evaluate their impact on business competitiveness.

The organizational characteristics described above confirm that the selected company represents a typical resource-constrained MSME operating within the restaurant sector. Consequently, the findings derived from this case provide valuable empirical evidence regarding the organizational feasibility of implementing low-cost artificial intelligence solutions under real business conditions.

### **3.2 Areas for Improvement**

The implementation of artificial intelligence generated measurable organizational improvements across all functional areas examined in the study. The magnitude of these improvements varied according to the nature of the operational processes and the level of technological integration achieved in each area. The following sections present the results according to the organizational dimensions established in the research design.

#### **3.2.1 Administration**

The administrative dimension exhibited one of the most significant operational improvements following the implementation of artificial intelligence tools. The adoption of generative AI supported the automation of knowledge management processes by facilitating the preparation, revision, and updating of operational

documentation. Consequently, administrative activities requiring repetitive writing and document standardization experienced substantial efficiency gains.

The results indicate that the implementation of AI reduced the time required to prepare operational manuals by 35%, approaching the organizational target of 40%. Furthermore, the frequency of manual updates increased from an annual to a quarterly basis, allowing operational procedures to remain aligned with current organizational practices. Likewise, the incorporation of Grammarly reduced writing and formatting errors by approximately 60%, improving document clarity, consistency, and usability for employees.

Overall, these findings suggest that artificial intelligence contributes not only to reducing administrative workloads but also to improving the standardization and consistency of organizational procedures, thereby strengthening internal operational management.

### 3.2.2 Marketing

Marketing performance was evaluated through three complementary indicators reflecting digital visibility, customer engagement, and commercial conversion. Together, these indicators provide a comprehensive assessment of the effectiveness of AI-assisted digital marketing strategies. The implementation of artificial intelligence in the marketing area focused on strengthening the restaurant's digital presence, improving customer interaction, and increasing sales generated through social media platforms. AI tools were incorporated to automate content creation, optimize visual communication, and improve the consistency of digital marketing strategies while reducing the time required to prepare promotional materials.

ChatGPT was used to generate promotional texts, advertising messages, and content for social media publications, whereas Canva facilitated the creation of visually attractive marketing materials aligned with the restaurant's brand identity. These tools were systematically employed throughout a six-month implementation period across the restaurant's primary digital communication channels, including Facebook and WhatsApp Business. During this period, key marketing indicators related to audience growth, customer interaction, and sales performance were continuously monitored.

The results demonstrate that the implementation of AI generated substantial improvements in digital marketing performance. The number of social media followers increased by 35%, reaching the growth target established by the organization. Customer interactions, measured through messages and inquiries received via digital platforms, increased by 9%, indicating greater audience engagement despite remaining slightly below the expected target of 12%. More importantly, the number of customer orders generated through social media increased by 41%, representing the highest performance improvement among all organizational areas evaluated in this study.

These findings indicate that artificial intelligence significantly strengthened the restaurant's digital marketing capabilities by improving communication effectiveness, increasing customer engagement, and expanding digital sales opportunities. The observed improvements demonstrate that even low-cost AI applications can

substantially enhance the commercial performance of resource-constrained MSMEs through more efficient digital communication strategies.

### 3.2.3 Accounting and Costs

The implementation of artificial intelligence in the accounting and cost management area focused on improving the efficiency, accuracy, and timeliness of financial processes. AI-supported applications integrated into Google Sheets and Microsoft Excel were used to automate invoice registration, payment tracking, and the monitoring of variable operating expenses. Automated formulas and control systems facilitated repetitive accounting activities while providing updated financial information to support managerial decision-making.

Monthly monitoring of accounting records and variable expenses was conducted throughout the implementation period to evaluate financial performance and budget control. The automation of accounting processes generated measurable operational improvements. The time required to record invoices and payments decreased by 25%, enabling accounting personnel to devote more time to analytical and supervisory activities rather than manual data entry. Likewise, errors in payment records were reduced by 18%, approaching the organizational target of 20% and improving the reliability of financial information.

Regarding cost management, the deviation in supply expenses remained below 4%, exceeding the organization's goal of maintaining deviations below 5%. Furthermore, the incorporation of predictive analysis improved the response time to budget deviations by 15%, allowing managers to identify unexpected cost fluctuations more rapidly and implement corrective actions in a timely manner.

Overall, the results demonstrate that the integration of accessible artificial intelligence tools strengthened accounting and cost management by reducing processing times, improving data accuracy, enhancing budget monitoring, and supporting more efficient financial decision-making.

### 3.2.4 Social Economy

Artificial intelligence tools were also implemented to strengthen social economy initiatives by supporting inclusive hiring practices and promoting purchases from local suppliers. Google Forms was used to collect and organize employment applications, Google Sheets facilitated the management and analysis of applicant information, and LinkedIn supported the identification of candidates from vulnerable groups, including at-risk youth and migrants. Additionally, digital records were used to classify suppliers according to their geographic origin and to monitor purchases from local businesses.

The implementation of these AI-supported processes generated positive organizational outcomes in both social inclusion and local economic development. During the first year of implementation, the restaurant achieved its objective of ensuring that 20% of its workforce consisted of employees from vulnerable groups, including an at-risk young person, a single mother, and a migrant. This result

demonstrates that AI-assisted administrative processes facilitated the identification, organization, and monitoring of inclusive recruitment practices.

Similarly, purchases from local suppliers increased from 18% to 30% during the study period, reflecting a stronger commitment to supporting the local economy and promoting fair trade practices. Although this represents substantial progress, the organizational objective of increasing local purchases to 60% remains under implementation and will require continued efforts in future stages of the digital transformation process.

Overall, these findings indicate that artificial intelligence can support social economy initiatives by improving the management of recruitment processes, facilitating supplier monitoring, and strengthening organizational practices aimed at promoting local economic development and social inclusion.

### **3.2.5 Overall Organizational Improvements**

The implementation of artificial intelligence generated measurable improvements across all organizational areas evaluated in this study. Although the magnitude of the observed effects differed according to the nature of each operational process, all performance indicators exhibited positive changes following AI adoption. The most substantial improvement was observed in the marketing area, where customer orders generated through digital channels increased by 41%. Administrative activities also experienced significant gains through reductions in document preparation time and improvements in procedural standardization. Likewise, accounting processes became more efficient through faster financial record management and enhanced budget control, while social responsibility initiatives benefited from improved stakeholder management and stronger engagement with local suppliers.

Collectively, these findings indicate that the adoption of accessible artificial intelligence tools contributed to improving organizational efficiency beyond isolated operational tasks. Instead, AI supported a broader process of digital transformation involving administrative, commercial, financial, and social dimensions, thereby strengthening the organization's overall competitiveness and operational performance.

The results presented above demonstrate that the implementation of accessible artificial intelligence tools generated measurable improvements across all organizational areas examined in this study. While the magnitude of these improvements varied according to the operational characteristics of each functional area, the overall findings consistently indicate positive organizational changes associated with AI adoption. The following section discusses these findings in relation to previous empirical research and their implications for the digital transformation of MSMEs.

## 4 Discussion.

### 4.1 Artificial Intelligence as a Driver of Operational Efficiency

The findings of this study demonstrate that the implementation of accessible artificial intelligence tools significantly improved the operational efficiency of the MSME under analysis. The most notable improvements were observed in administrative management and accounting processes, where AI reduced the time required to prepare operational manuals, automate accounting records, and strengthen financial control. These findings suggest that the organizational value of AI extends beyond task automation by facilitating process standardization, improving information quality, and supporting managerial decision-making.

The results are consistent with those reported by Noy and Zhang [2], who demonstrated that generative artificial intelligence significantly increases productivity by reducing the time required to complete knowledge-intensive tasks while improving the quality of the outputs produced. Similarly, [7] argues that digital transformation should be understood as an organizational innovation process rather than merely a technological change, since digital technologies modify internal routines, improve operational flexibility, and strengthen organizational capabilities.

Likewise, the improvements observed in accounting and cost management support the findings of [8], who reported that AI-assisted accounting systems reduce manual errors, accelerate financial processes, and improve the reliability of accounting information. In the present study, these benefits were reflected in shorter processing times, lower error rates, and more effective monitoring of variable operating expenses.

From a managerial perspective, these findings indicate that even freely available artificial intelligence applications can generate measurable operational improvements in resource-constrained MSMEs. Consequently, digital transformation should not be viewed exclusively as a large-scale technological investment but as a gradual organizational strategy capable of improving efficiency through the intelligent integration of accessible digital tools.

### 4.2 Artificial Intelligence and Digital Competitiveness

The results obtained in the marketing area demonstrate that artificial intelligence can become a strategic resource for strengthening the digital competitiveness of MSMEs. The implementation of AI-assisted tools for content generation, visual design, and customer interaction contributed to a 35% increase in social media followers, a 9% increase in customer interactions, and, most importantly, a 41% increase in orders generated through digital platforms. These findings indicate that accessible AI applications can improve not only communication efficiency but also commercial performance by facilitating stronger relationships with customers and expanding digital sales channels.

The observed improvements are consistent with the findings of Zambrano Manzur et al. [4], who argue that artificial intelligence enhances organizational decision-making by enabling businesses to respond more effectively to dynamic and uncertain market

environments. Likewise, Lozano et al. [5] reported that digital transformation strategies significantly improve the market sustainability of Mexican MSMEs by increasing customer engagement and strengthening competitive positioning.

Similarly, [3] found that the adoption of artificial intelligence technologies positively influences the sustainable performance of SMEs by improving innovation capabilities, operational flexibility, and business competitiveness. The present case study supports these conclusions by demonstrating that even freely available AI applications can generate measurable improvements in digital marketing performance without requiring substantial technological investments.

These findings are also supported by the work of Chatterjee et al. [17], who emphasize that generative artificial intelligence is transforming digital marketing by facilitating personalized customer communication, accelerating content creation, and improving customer engagement through data-driven interactions. Likewise, Dwivedi et al. [18] Argue that generative AI is reshaping organizational marketing strategies by enabling firms to develop more agile, customer-centered, and scalable digital communication processes.

From a managerial perspective, the findings suggest that AI should be viewed not merely as a technological innovation but as a strategic capability capable of strengthening digital competitiveness. For MSMEs operating under financial and technological constraints, the adoption of accessible AI tools represents an opportunity to improve customer acquisition, increase market visibility, and enhance organizational performance through more efficient digital marketing strategies.

#### **4.3 Artificial Intelligence for Social Economy and Sustainable Business Development**

The findings of this study indicate that artificial intelligence can also support the social dimension of digital transformation by facilitating the administrative management of inclusive employment practices and strengthening relationships with local suppliers. Although the primary objective of AI implementation was to improve organizational efficiency, the digital tools adopted by the restaurant also contributed to achieving social economy objectives by streamlining recruitment processes, organizing applicant information, and monitoring purchases from local businesses. As a result, the company achieved its target of maintaining 20% of its workforce composed of employees from vulnerable groups while increasing purchases from local suppliers from 18% to 30% during the first year of implementation.

These findings reinforce the growing view that digital transformation should not be understood solely as a technological process but as an organizational capability capable of generating economic and social value simultaneously. In this regard, Soomro et al. [3] Reported that artificial intelligence positively influences the sustainable performance of SMEs by improving organizational capabilities that integrate economic efficiency with sustainability objectives. Similarly, Lozano Montero et al. [5] Argue that digital transformation strengthens the long-term sustainability of Mexican MSMEs by promoting innovation, competitiveness, and stronger relationships with key stakeholders.

The results are also consistent with the perspective of George et al. [19], who argue that artificial intelligence can contribute to sustainable organizational development when its implementation is aligned with broader social and managerial objectives rather than focusing exclusively on automation and productivity gains. Likewise, Elia et al. [20] Emphasize that the strategic adoption of AI enables organizations to generate shared value by improving stakeholder relationships, strengthening responsible supply chains, and supporting more inclusive business practices.

Nevertheless, the present study also demonstrates that digital transformation is an ongoing process rather than an immediate outcome. Although the increase in purchases from local suppliers represents significant progress, the organizational objective of sourcing 60% of products locally has not yet been achieved. This finding suggests that the long-term organizational benefits of artificial intelligence depend not only on technology adoption but also on continuous managerial commitment, organizational learning, and the progressive integration of digital tools into business strategy.

From a managerial perspective, these results indicate that accessible artificial intelligence applications may contribute to sustainable business development by supporting more efficient administrative processes while simultaneously strengthening organizational commitment to social inclusion and local economic development. Consequently, AI should be viewed as a strategic enabler capable of generating both operational and social value within resource-constrained MSMEs.

## 5 Conclusions

This study set out to analyze how the implementation of accessible artificial intelligence tools influences operational efficiency, competitiveness, sustainability, and digital transformation within a micro, small, and medium-sized enterprise (MSME) in the restaurant sector. The findings provide evidence that the research objective was successfully achieved. The implementation of AI generated measurable improvements across the four organizational dimensions examined—administration, marketing, accounting and costs, and social economy—demonstrating that even low-cost digital solutions can contribute to organizational transformation when they are strategically integrated into everyday business processes. Rather than producing isolated operational improvements, the adoption of artificial intelligence supported a comprehensive digital transformation process that enhanced administrative performance, strengthened customer engagement, improved financial management, and reinforced organizational commitment to local economic development.

A key contribution of this research lies in its integrated approach to evaluating artificial intelligence adoption. While much of the existing literature has examined AI applications within individual business functions, this study simultaneously analyzed their effects across multiple organizational areas using measurable Key Performance Indicators (KPIs) within the same enterprise. This broader perspective provides empirical evidence that digital transformation extends beyond technological implementation and involves organizational changes that reshape managerial

practices, internal processes, commercial activities, and stakeholder relationships. Consequently, the study contributes to expanding current knowledge on the practical application of accessible artificial intelligence in resource-constrained MSMEs operating in emerging economies.

From a managerial perspective, the findings suggest that digital transformation does not necessarily require substantial financial investments or sophisticated technological infrastructure. Instead, organizations can progressively incorporate freely available AI applications into their daily operations, generating tangible improvements in efficiency, customer interaction, financial control, and social economy initiatives. For managers of MSMEs, this experience illustrates that the strategic value of artificial intelligence depends less on the complexity of the technology itself than on its effective integration into organizational routines and decision-making processes.

Although the study was conducted in a single restaurant located in Tijuana, Baja California, the experience documented here offers valuable insights for other MSMEs facing similar financial and technological constraints. While the findings should not be interpreted as statistically generalizable, they provide analytical evidence regarding the organizational feasibility of implementing accessible artificial intelligence solutions in comparable business contexts.

Like any case study, this research presents certain limitations. The analysis focused on one organization and evaluated the initial stage of AI implementation over a defined period. Consequently, the long-term organizational effects of digital transformation and the scalability of these practices across different economic sectors remain topics for further investigation. In addition, the study concentrated on widely accessible AI applications rather than advanced artificial intelligence systems that require specialized infrastructure or significant technological investment.

Building upon these findings, future research could examine the long-term effects of AI adoption through longitudinal studies involving MSMEs from different industries and geographical regions. Comparative analyses would make it possible to identify contextual factors influencing digital transformation and determine whether similar organizational benefits emerge under different economic and institutional conditions. Likewise, future studies could employ larger samples and advanced quantitative techniques, such as structural equation modeling or longitudinal performance analysis, to explore the relationships between artificial intelligence adoption, organizational capabilities, competitiveness, sustainability, and business performance.

In conclusion, this study demonstrates that accessible artificial intelligence should not be viewed simply as a technological innovation but as a strategic organizational capability capable of supporting the gradual transformation of MSMEs. As AI technologies become increasingly available to small businesses, their greatest value will not depend exclusively on technological adoption but on the capacity of organizations to integrate these tools into their managerial practices, organizational culture, and long-term development strategies. Under this perspective, artificial intelligence represents not only an instrument for improving operational performance but also a catalyst for building more competitive, resilient, and sustainable enterprises.

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