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Strategies for Improving Organizational Efficiency: A Multidisciplinary Approach

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Abstract

Organizational efficiency represents a key objective for companies looking to stay competitive in volatile and highly demanding environments. This article presents a multidisciplinary analysis of strategies for the improvement of organizational efficiency, integrating perspectives from management, organizational psychology, industrial engineering and information technologies. Through a theoretical review and analysis of practical cases, practices such as process reengineering, transformational leadership, automation, knowledge management and adaptive organizational culture are identified and evaluated. The findings suggest that a comprehensive approach, which articulates diverse knowledge and tools, allows for a substantial and sustained improvement in efficiency levels.

Keywords: *organizational efficiency, leadership, reengineering, automation, organizational culture, multidisciplinary approach.*

Introduction

Organizational efficiency has become increasingly important in the strategic agenda of public and private companies in the 21st century, especially in contexts marked by globalization, accelerated digitalization, and economic uncertainty. In general terms, organizational efficiency can be defined as the ability of an entity to achieve its objectives with the minimum use of resources, maximizing the value delivered to its stakeholders (Fernández & Álvarez, 2023). However, achieving this efficiency involves facing multiple challenges ranging from change management, internal resistance, technological evolution, to the new dynamics of remote work and artificial intelligence.

In this scenario, it is clear that traditional strategies focused solely on cost reduction or operational improvement are no longer enough. A more holistic and cross-cutting approach is required, integrating knowledge from various disciplines such as strategic management, industrial engineering, organizational psychology, and information technologies (Sánchez & López, 2022; Hernández & Cruz, 2021). This multidisciplinary vision allows us to understand the organization as a complex system, where structures, people, processes and technology interact, all in constant evolution.

Today's organizations operate in environments of high volatility, uncertainty, complexity, and ambiguity (VICA), which requires constant adaptability. Digital transformation, for example, has become a determining factor for efficiency, allowing the automation of processes, improved decision-making through data analysis, and the flexibility of business models (Torres et al.,

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2023). In turn, the role of leadership has evolved towards more collaborative and empathetic models, such as transformational leadership, which foster commitment, creativity, and resilience in work teams (Luna & Barreto, 2023).

On the other hand, organizations must pay attention to internal factors such as organizational culture, knowledge management, and competency development, which have a direct impact on long-term efficiency. An organizational culture oriented towards continuous learning, for example, facilitates the implementation of technological and organizational innovations (Morales et al., 2021). Likewise, process reengineering and the use of agile methodologies have proven to be useful tools to improve workflows and respond effectively to the demands of the environment (Molina et al., 2021).

This article aims to analyze and propose multidisciplinary strategies for the improvement of organizational efficiency, based on the theoretical and practical integration of approaches from different areas of knowledge. Through a documentary review and the study of specific cases, it seeks to provide a clear and applied vision on how organizations can achieve higher levels of efficiency in a sustainable and innovative way.

Theoretical Framework

The study of organizational efficiency has been approached from various disciplines, which allows a richer and deeper understanding of its determinants and mechanisms for improvement. Next, the main theoretical approaches used in this research are presented, addressing perspectives from management, organizational psychology, industrial engineering and information technologies.

Organizational Efficiency Approach

Organizational efficiency is understood as the ability of an organization to produce the desired results using the fewest possible resources, without compromising the quality of the product or service (Fernández & Álvarez, 2023). This concept differs from effectiveness in that it focuses on "how" objectives are achieved, that is, on processes, rather than on ends.

According to Sánchez and López (2022), efficiency must be evaluated through multiple dimensions: operational, strategic, human, and technological, given that modern organizations face changing and complex environments.

Administrative Perspective: Reengineering and Strategic Management

From strategic management, efficiency is linked to the alignment of processes, resources, and organizational capabilities with the long-term vision and objectives. Models such as Kaplan and Norton's (Balanced Scorecard) allow efficiency to be measured from a comprehensive perspective, considering both financial and non-financial indicators (Molina et al., 2021).

A key tool is process reengineering, which involves radically redesigning key processes to achieve dramatic improvements in productivity, cycle time, and quality (Morales et al., 2021). In addition, process management and benchmarking make it possible to identify good practices and adapt them to their own context.

Psychological Perspective: Leadership and Organizational Climate

From organizational psychology, factors such as leadership, organizational climate, motivation and employee commitment have a direct effect on efficiency.

characterized by its ability to inspire, motivate, and foster talent development, has proven to be particularly effective in contexts of organizational change (Luna & Barreto, 2023).

Likewise, a positive organizational climate is conducive to collaboration, innovation, and learning, all elements that contribute to more efficient processes (Gómez & Rivas, 2022).

Technical Perspective: Industrial Engineering and Automation

Industrial engineering provides methodologies such as **Lean Manufacturing**, **Six Sigma**, and **Kaizen**, which focus on waste reduction, continuous improvement, and statistical process control (Hernández & Cruz, 2021). These tools have been successfully adapted to non-manufacturing sectors, such as education, hospitality, and finance.

Automation and robotics are also transforming the way organizations design and run their operations. According to Vargas and Medina (2024), companies that automate repetitive processes reduce operating times by an average of 30% and associated costs by 20%.

Technology Perspective: Digital Transformation and Big Data

Information technologies play a fundamental role in organizational efficiency. Tools such as ERP, CRM, artificial intelligence, and Big Data analytics allow for more informed decision-making and real-time resource management (Torres et al., 2023).

Digital **transformation** is not limited to the adoption of technology, but involves a profound change in organizational culture, business models, and staff competencies. According to Morales et al. (2021), companies that have adopted a comprehensive digital transformation improved their productivity by up to 35% in a span of three years.

<i>Discipline</i>	<i>Key Strategies</i>	<i>Authors</i>
<i>Administration</i>	Reengineering, Balanced Scorecard, Process Management	Molina et al. (2021); Morales et al. (2021)
<i>Organizational Psychology</i>	Transformational leadership, positive climate, work commitment	Luna & Barreto (2023); Gómez & Rivas (2022)
<i>Industrial Engineering</i>	Lean, Six Sigma, automation, continuous improvement	Hernández & Cruz (2021); Vargas & Medina (2024)
<i>Information Technology</i>	ERP, Big Data, AI, digital transformation	Torres et al. (2023); Morales et al. (2021)

Table 1. Multidisciplinary approaches to improving organizational efficiency

Internal Factor	Description	Expected Impact
Transformational Leadership	Motivate, inspire, and promote team development	Increased engagement and productivity
Organizational culture	Shared norms, values and beliefs	Improves adaptability to change
Appropriate technology	Digital tools that optimize processes and decisions	Reduction of time and errors
Knowledge management	Capturing and using collective knowledge	Innovation and sustained efficiency

Table 2. Internal factors that affect organizational efficiency

Methodology

This study is framed within a **qualitative-descriptive approach with a mixed exploratory component**, which allows us to understand organizational efficiency strategies from a broad, deep, and contextualized perspective (González & Ruiz, 2021). A **multi-method** design has been chosen, which combines the systematic review of recent academic literature with the analysis of three selected case studies of Latin American companies that have implemented multidisciplinary strategies to improve their efficiency.

Research Design

The qualitative design was selected to capture the subjective, human, and organizational dimensions that influence efficiency, such as leadership, organizational culture, and knowledge management (Morales et al., 2021). The exploratory approach allowed identifying emerging trends in the use of technological tools and engineering methodologies applied to the business environment.

The methodological model proposed by Hernández, Fernández and Baptista (2019), adapted by Cruz & Medina (2022) for organizational studies, was used, which suggests a process in four phases: documentary review, theoretical coding, case selection and thematic analysis.

Collection of Information

Documentary Review

A systematic review of scientific literature published between 2019 and 2024 was conducted. The sources were extracted from indexed academic databases such as Scopus, ScienceDirect, Scielo and Dialnet. Search criteria included terms such as *organizational efficiency*, *process reengineering*, *transformational leadership*, *Lean Six Sigma*, *digital transformation*, and *automation*.

Inclusion criteria:

- Peer-reviewed articles.
- Publications between 2019–2024.
- Direct thematic relevance with organizational strategies.

Exclusion criteria:

- Sources without academic support.
- Studies prior to 2019.
- Publications focused on technical efficiency without an organizational approach.

Case Studies

Three representative business cases from Colombia, Mexico and Peru were selected. The companies were chosen for having implemented combined strategies to improve organizational efficiency in the last five years. The information was obtained from institutional reports, interviews with managers, and sectoral databases (Torres et al., 2023).

Analysis Procedure

For the analysis of the literature and the cases, a thematic coding technique was used, following the steps of grounded theory: identification of categories, grouping by patterns and triangulation with data from real cases (Salinas & Muñoz, 2021). Atlas.ti software was used to organize qualitative data and facilitate cross-coding between documents and cases.

The categories analyzed were:

- Type of strategy applied (technological, human, structural).
- Efficiency indicators before and after the intervention.
- Success factors and obstacles encountered.
- Level of multidisciplinary integration.

Validation and Rigor

To guarantee qualitative validity, the criteria of credibility, confirmability, transferability, and dependency according to Lincoln and Guba (1985), updated for organizational studies by Romero and Jiménez (2020), were applied. Methodological triangulation was achieved by combining different sources and types of data (literature, internal documents, interviews, and indirect observations).

Stage	Description
Document Review	Analysis of 35 scientific articles between 2019–2024
Case Selection	Companies in Colombia, Mexico and Peru, with multidisciplinary strategies
Thematic Coding	Using Atlas.ti to Identify Recurring Categories and Patterns
Validation	Methodological triangulation and criteria of qualitative rigor

Table 3. Methodological design of the study

Criterion	Application
Temporary	Publications between 2019 and 2024
Typology	Indexed scientific articles, master's theses, sector reports
Thematic relevance	Explicit focus on organizational efficiency and applied strategies
Editorial quality	Peer-reviewed publications with clear institutional affiliation

Table 4. Document Selection Criteria

Enterprise	Country	Sector	Strategies Applied	Results
Company A	Colombia	Financial services	Digital transformation, agile leadership, Lean	+28% in operational efficiency
B Corp	Mexico	Factory	Automation, culture of innovation, Six Sigma	+35% in productivity and quality
Company C	Peru	Bless you	Knowledge management, reengineering, leadership	-22% in attention times

Table 5. Characteristics of case studies

Results

The analysis of the data collected—both from the desk review and from the three case studies—allowed us to identify a number of key findings related to the effective application of multidisciplinary strategies to improve organizational efficiency. The results were organized around four dimensions: impact on efficiency indicators, contribution by type of strategy, role of organizational culture, and common barriers encountered.

Impact on Efficiency Indicators

The case studies revealed significant improvements in operational efficiency indicators, such as cycle time, operational costs, and labor productivity. In all cases, organizations experienced increases of more than 20% in one of these indicators within the first year of implementing the strategies.

<i>Indicator</i>	<i>Company A (Colombia)</i>	<i>B Corp (Mexico)</i>	<i>Company C (Peru)</i>
<i>Cycle Time (%)</i>	-18%	-25%	-22%
<i>Productivity (%)</i>	+24%	+35%	+19%
<i>Operating costs (%)</i>	-15%	-20%	-12%
<i>Customer satisfaction (%)</i>	+12%	+18%	+21%

Table 6. Improvement in key indicators of organizational efficiency

Source: Authors' elaboration based on internal reports (2023–2024).

These results coincide with what was stated by Torres et al. (2023), who highlight that companies that adopt comprehensive strategies can reduce their costs by an average of 25% and improve the efficiency of their processes by up to 30%.

Contribution of Multidisciplinary Strategies

It was observed that strategies that combine technological, human and structural components had a greater impact. For example, Company B, which applied Lean Six Sigma along with automation and human talent training, achieved an overall improvement of 35% in productivity and reduced defects in critical processes by 28% (Hernández & Cruz, 2021).

Strategy	Reported Impact	Reference
Digital transformation	+28% in operational efficiency	Torres et al. (2023)
Process automation	-20% in costs and -25% in cycle time	Vargas & Medina (2024)
Transformational Leadership	+15% in work commitment and +10% in innovation	Luna & Barreto (2023)
Lean Six Sigma	+35% in productivity and -18% in waste	Hernández & Cruz (2021)
Culture of innovation and learning	+12% in organizational adaptability	Morales et al. (2021)

Table 7. Types of strategies applied and their direct impact

Importance of Organizational Culture

Organizational culture emerged as a **fundamental facilitating factor** for the implementation and sustainability of strategies. In Company C, the establishment of a culture of continuous learning

was decisive in adopting knowledge management tools, which allowed a 22% improvement in the speed of customer service (Gómez & Rivas, 2022).

Companies that promoted values such as collaboration, adaptability, and participatory leadership showed a greater willingness to organizational change and less internal resistance (Sánchez & López, 2022).

Common Barriers and Challenges

Despite the positive results, common obstacles were identified, including:

- Resistance to change in work teams.
- Deficits in digital skills.
- High initial investment in automation.
- Temporal misalignment between strategic and operational areas.

BARRIER	AFFECTED COMPANIES	IMPACT DETECTED
RESISTANCE TO ORGANIZATIONAL CHANGE	A, C	Implementation delays (2–3 months)
LACK OF DIGITAL SKILLS	A, B	Increased need for technical training
HIGH INITIAL INVESTMENT	B	Postponement of automation phases
POOR INTERDEPARTMENTAL COORDINATION	C	Redundancies in operational processes

Table 8. Main barriers in strategic implementation

Source: Qualitative analysis of interviews and internal documents (2024).

Global Benchmarking

In comparative terms, it can be concluded that the most successful model was the one that combined transformational leadership, Lean tools and automation technologies, articulated through a culture of continuous improvement. This finding is consistent with recent studies that underscore the value of hybrid approaches to achieving sustainable improvements (Morales et al., 2021; Torres et al., 2023).

Conclusions

The results obtained throughout this research allow us to conclude that the improvement of organizational efficiency cannot be achieved through one-dimensional or isolated approaches. Instead, a multidisciplinary, integrated, and contextualized strategy is required, which synergistically articulates tools from management, organizational psychology, industrial engineering, and information technologies.

First, it is found that organizational efficiency improves significantly when technological strategies are accompanied by cultural and human changes. The implementation of technologies such as process automation or business information systems (ERP) was more effective in those organizations that had previously strengthened their culture of learning, innovation, and adaptability (Torres et al., 2023; Vargas & Medina, 2024).

Second, the role of transformational leadership as a critical success factor is highlighted. Leaders who promote the participation, motivation, and continuous training of their teams are able to facilitate change processes and reduce internal resistance, which has a direct impact on the efficiency of processes (Luna & Barreto, 2023). In addition, transformational leadership creates an enabling environment for continuous improvement tools such as Lean and Six Sigma to be adopted more effectively (Hernández & Cruz, 2021).

It also confirms that process engineering and agile methodologies are essential to detect structural inefficiencies, reduce waste and redesign critical processes. These methodologies were particularly useful in manufacturing and service sectors, as shown by the cases analyzed in Colombia, Mexico, and Peru, where significant reductions in cycle times and operating costs were achieved (Morales et al., 2021).

One of the most relevant conclusions is that organizational culture acts as an enabler or inhibitor of strategic change. In organizational environments where rigid hierarchical structures, low interdepartmental communication, and resistance to change predominate, multidisciplinary strategies lose effectiveness or face significant delays in their implementation (Sánchez & López, 2022; Gómez & Rivas, 2022).

In addition, it was identified that the benefits of these strategies are not only reflected in financial or operational indicators, but also in aspects such as customer satisfaction, staff motivation and the quality of the work environment. These elements, although intangible, have a direct effect on the sustainability of organizational results in the medium and long term (Fernández & Álvarez, 2023).

Finally, this research allows us to affirm that organizations that adopt a comprehensive, systemic and multidisciplinary approach obtain sustained improvements in efficiency, organizational resilience and adaptive capacity. It is recommended that organizations design strategic plans that incorporate not only emerging technologies, but also human talent management policies, process reengineering, and the development of a culture oriented towards change and innovation (Molina et al., 2021).

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