

Review Article

Kaizen as a Pathway to Industrial Transformation in Sub-Saharan Africa: A Systematic Literature Review

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Abstract

In the context of Sub-Saharan Africa's (SSA) ambitious industrialization agenda and its quest for global competitiveness, this systematic literature review critically examines the increasingly vital role of Kaizen—a Japanese philosophy of continuous improvement—within the region's diverse industrial sectors. Synthesizing evidence from 78 peer-reviewed articles and case studies published between 2010 and 2024, and adhering to the PRISMA framework. The review firmly positions Kaizen not merely as an operational tool, but as a strategic imperative for fostering enhanced competitiveness and sustainable growth within these emerging economies. The findings clearly demonstrate measurable and substantial improvements across critical operational dimensions. Operational efficiency has seen reported productivity increases ranging from 15% to 30%, largely achieved through waste reduction, optimized process flows, and enhanced resource utilization. Concurrently, quality management shows remarkable enhancements, with up to a 40% reduction in defects and rework, attributed to process standardization, root cause analysis, and proactive quality control. Beyond tangible metrics, Kaizen fosters greater workforce engagement, empowering employees through suggestion systems and problem-solving teams, leading to boosted morale and improved safety across diverse manufacturing subsectors like automotive, textiles, and food processing. Despite these encouraging outcomes, pervasive implementation barriers limit Kaizen's full potential and scalability in SSA. Foremost is entrenched cultural resistance to change, stemming from hierarchical management structures, a prevailing fear of failure, and an organizational short-term focus. Widespread infrastructural deficiencies, including unreliable power supply, inadequate logistics, and limited access to advanced manufacturing technologies, pose significant practical challenges. Addressing these systemic obstacles is paramount for improving Kaizen's transformative power and contributing to SSA's sustainable industrial development.

Keywords

Kaizen, Continuous Improvement, Sub-Saharan Africa, Industrial Development, Productivity Growth

1. Introduction

Sub-Saharan Africa (SSA) stands at a critical stage, actively pursuing industrial transformation as a cornerstone for sustained economic growth, diversification, and job creation [2]. However, the region's industrial sector often grapples

with significant challenges, including low productivity, inconsistent quality, and limited global competitiveness, which hinder its ability to fully participate in global value chains [10]. In this context, Kaizen – the Japanese philosophy of contin-

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uous, incremental improvement – emerges as a potentially powerful methodology [14]. By fostering a culture of ongoing problem-solving, waste reduction, and enhanced efficiency at all organizational levels, Kaizen offers a bottom-up approach to address these fundamental limitations [11].

Indeed, Kaizen has recently gained global recognition as a robust foundation for fostering innovation and operational excellence [5]. The Japan International Cooperation Agency (JICA) has notably championed Kaizen across the SSA region, implementing projects in eight countries and offering training programs in over 25 nations with considerable success [7]. Despite these targeted efforts, Kaizen remains relatively underutilized and has not yet achieved widespread adoption across the continent [6]. This suggests a persistent need for greater awareness and capacity-building initiatives to fully unlock its potential in driving sustainable growth and productivity in African industries [3].

The imperative for such interventions is underscored by the dire state of the industrial sector in Sub-Saharan Africa. The region continues to face significant challenges in global competitiveness, with stagnant labor productivity levels [4]. This persistent productivity gap highlights an urgent need for operational improvements to enhance efficiency, reduce waste, and improve product quality. In response, Kaizen—originally developed in post-war Japan and popularized through Toyota's Production System [8], with its emphasis on employee-driven problem-solving, waste reduction, and standardized work processes—has emerged as a promising strategy for transforming African manufacturing. Crucially, while its principles have been successfully applied in various global contexts, their adaptation within SSA remains a critical yet understudied area [12].

While studies confirm Kaizen's effectiveness in Asian and Western manufacturing, its transferability to SSA's unique institutional and business environments remains severely under-researched [15]. Existing literature on Kaizen in SSA is fragmented, consisting mostly of isolated case studies and sector-specific reports rather than comprehensive analyses. This significant research gap makes it difficult to assess the long-term sustainability of Kaizen initiatives in SSA industries [13]. Furthermore, the inherent cultural and structural differences prevalent in the region—such as hierarchical management styles, potential resistance to change, and infrastructural deficiencies—pose considerable challenges to Kaizen's full and effective implementation [9]. Remarkably, despite its proven benefits and initial promotional efforts, Kaizen has yet to achieve widespread, embedded adoption in SSA's industrial sector. This suggests a critical need for more strong awareness campaigns, tailored training programs, and stronger institutional support to embed Kaizen principles into African business cultures [16]. Therefore, this study aims to provide evidence-based insights into how Kaizen principles can effectively enhance productivity, competitiveness, and sustainable growth in Sub-Saharan African industries, ultimately contributing to economic development and structural

transformation by addressing the following research questions.

1.1. Research Questions

The study investigates four core questions:

- 1) What patterns emerge in Kaizen adoption across SSA countries and industrial sector?
- 2) What measurable benefits have industrial sector realized from Kaizen implementation?
- 3) What are the most significant barriers to effective Kaizen adoption in SSA contexts?
- 4) Which adaptation strategies have proven most successful in overcoming implementation challenges?

1.2. Significance of the Study

The significance of this study lies in its three key contributions. First, it provides the first comprehensive synthesis of Kaizen literature specifically focused on Sub-Saharan African (SSA) manufacturing, filling a critical gap in existing research. Second, the study develops a framework for contextual Kaizen adaptation tailored to the unique challenges and opportunities of developing economies, offering a structured approach for implementation. Finally, it delivers practical insights for policymakers and industry practitioners seeking to enhance manufacturing competitiveness, equipping them with actionable strategies to drive sustainable improvements in productivity and operational efficiency.

2. Methodology

2.1. Search Strategy

The review employed a systematic search strategy across seven major academic databases (Scopus, Web of Science, ScienceDirect, JSTOR, EBSCOhost and Google Scholar). Relevant literature was identified using key terms such as "Kaizen," "continuous improvement," "lean manufacturing," "Africa manufacturing," and "productivity improvement." To focus on recent developments, the search was confined to English-language publications published between 2010 and 2024.

2.2. Inclusion and Exclusion Criteria

Inclusion Criteria

The inclusion criteria for this study focused on selecting high-quality, relevant sources documenting Kaizen implementation in Sub-Saharan African (SSA) manufacturing sectors. Only empirical studies with reported outcomes of Kaizen interventions were considered, ensuring evidence-based findings. The review incorporated peer-reviewed journal articles, conference papers, and doctoral dissertations to maintain academic rigor. Additionally, government reports

and policy documents from recognized institutions were included to capture official perspectives and large-scale initiatives. Case studies were also selected, provided they demonstrated verifiable methodologies and clear results, offering practical insights into Kaizen applications. This multi-source approach ensured a comprehensive analysis of both theoretical frameworks and real-world implementations across SSA's manufacturing landscape.

Exclusion Criteria

The exclusion criteria were applied to maintain focus and rigor in the study. Publications discussing Kaizen implementation outside the manufacturing sector—such as in healthcare, education, or service industries—were omitted to ensure relevance to the research scope. Purely theoretical papers lacking empirical validation were also excluded, as the review prioritized evidence-based findings with measurable outcomes. Additionally, duplicate publications and studies with insufficient methodological detail—such as those missing clear research designs, data collection processes, or analytical frameworks—were removed to uphold the quality and reliability of the review. These exclusions helped refine the analysis to only the most pertinent and methodologically sound literature on Kaizen in Sub-Saharan African manufacturing.

2.3. PRISMA Framework Implementation

The review adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) 2020 guidelines [11] to ensure methodological rigor and transpar-

ency. Accordingly, the research process began with a systematic search for relevant studies. A total of 1,233 studies were initially identified through comprehensive database searches. Additionally, 7 studies were sourced from supplementary records, such as conference proceedings, institutional repositories, and reference lists of key articles. Combining these sources yielded a preliminary pool of 1,240 studies. To ensure data integrity, duplicate entries were carefully removed. Surprisingly, no duplicates were found, meaning the total number of unique records remained at 1,240. The next step involved a preliminary screening based on titles and abstracts to determine relevance to the study's focus—Kaizen as a Pathway to Industrial Transformation in Sub-Saharan Africa. This screening process narrowed the selection to 78 studies, while 1,142 records were excluded for being unrelated to the research topic.

Following the initial screening, the remaining 78 studies undergo a careful eligibility and quality assessment. This evaluation considered factors such as methodological rigor; relevance to SSA industrial sector, and the clarity of findings. At this stage, 98 studies were initially considered for deeper analysis, indicating that some additional relevant studies may have been identified during the assessment. However, upon closer examination, 20 studies were excluded for failing to meet the predefined inclusion criteria. Reasons for exclusion included insufficient empirical data, lack of focus on SSA, and weak methodological frameworks. After this thorough selection process, 78 high-quality studies were deemed suitable for inclusion in the final systematic review. A detailed overview of the selection process is presented in Figure 1.

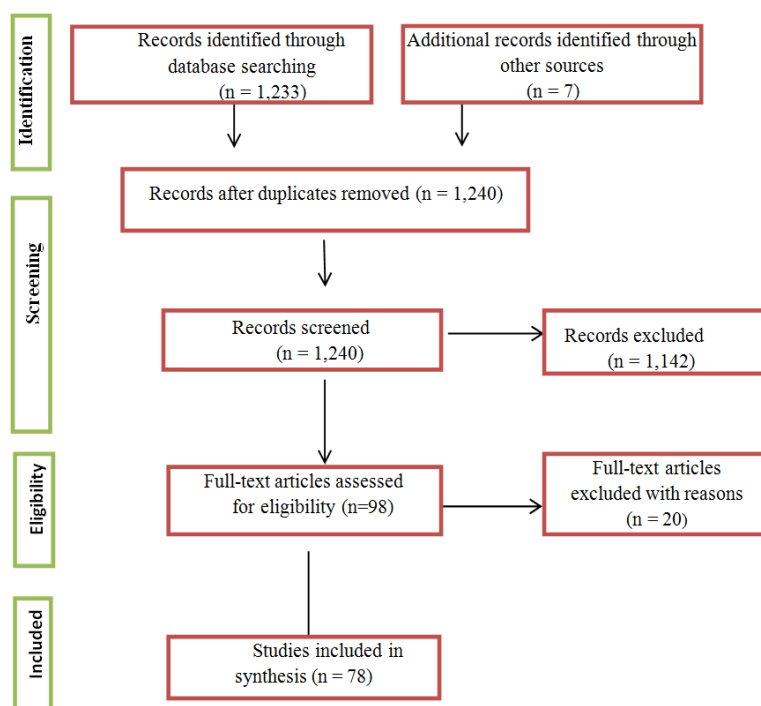


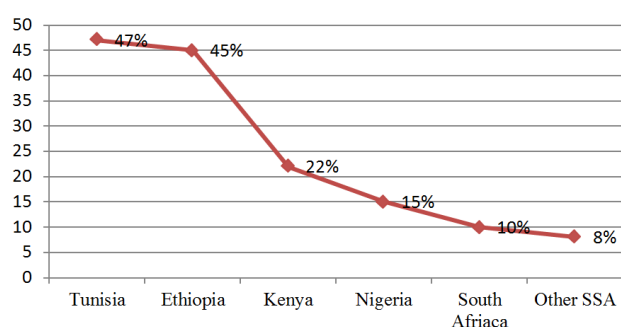
Figure 1. PRISMA -2020 frame work.

2.4. Data Extraction and Analysis

A standardized extraction template was developed to systematically capture study characteristics (author, year, country, methodology), organizational context (industry sector, firm size), Kaizen implementation details (approach, duration), quantitative performance metrics (e.g., productivity, cost reduction), and qualitative insights (challenges, success factors). The analysis employed a dual approach: quantitative synthesis was used to evaluate measurable outcomes, such as performance improvements, while thematic analysis identified recurring patterns in qualitative data, including barriers and contextual influences on Kaizen adoption. This mixed-methods design enabled a comprehensive assessment of both empirical results and underlying operational or cultural dynamics.

3. Results and Discussion

3.1. Kaizen Adoption by SSA Countries



Source: Synthesis of 78 studies

Figure 2. SSA Kaizen Adoption trends.

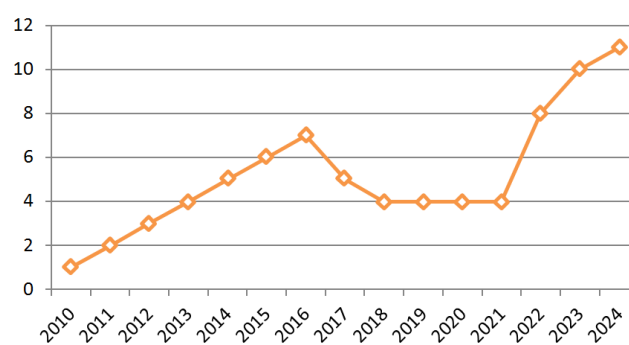
Figure 2 vividly illustrates how the adoption of Kaizen principles varied considerably in its intensity across different regions of Sub-Saharan Africa from 2010 to 2023. The data, synthesized from 78 studies, shows Tunisia and Ethiopia leading with adoption rates of 47% and 45% of studies respectively, followed by Kenya (22%), Nigeria (15%), South Africa (10%), and other SSA countries collectively at 8%. These findings emphasize a concentration of Kaizen implementation in few African regions, with comparatively limited penetration in other countries.

The dominance of Tunisia and Ethiopia in Kaizen adoption can be attributed to strong government-led industrial policies that have institutionalized continuous improvement methodologies. Ethiopia's Kaizen Institute, established in 2011 with Japanese support, has played a pivotal role in driving nationwide adoption, particularly in manufacturing and agro-processing sectors. Kenya's 22% representation reflects

its robust private-sector engagement, especially among export-oriented manufacturers seeking global competitiveness. Conversely, Nigeria's 15% adoption rate—despite being Africa's largest economy—suggests implementation challenges related to infrastructure deficits and inconsistent policy support, while South Africa's 10% share indicates limited penetration beyond multinational corporations.

The regional imbalance evident in the data (with "Other SSA" at just 8%) raises critical questions about structural barriers to diffusion. The findings suggest that Kaizen's spread has been geographically clustered rather than uniformly distributed, with adoption strongly correlated with targeted government interventions, donor-supported programs, and export industry pressures. This presents both a challenge and opportunity for policymakers seeking to scale productivity improvements across SSA's industrial sectors.

3.2. Yearly Publication Trends

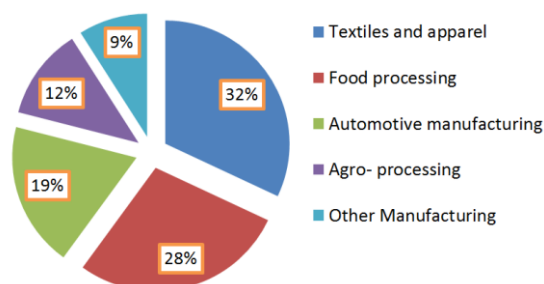


Source: Synthesis of 78 studies

Figure 3. Publications by year.

The bar graph synthesizes findings from 78 studies on Kaizen's role in industrial transformation across Sub-Saharan Africa, revealing distinct publication trends from 2010 to 2024. The early years (2010–2016) show moderate but fluctuating publication numbers, reflecting Kaizen's initial adoption phase. A significant peak occurs in 2016, may coincide with policy milestones such as the African Union's Agenda 2063, which emphasized industrial competitiveness. From 2018 to 2021, publications stagnated, a trend attributable to disruptions from the COVID-19 pandemic, which diverted focus from research to crisis management. Post-2021, resurgence is evident, peaking in 2024, signaling renewed academic and practical interest in Kaizen as a tool for pandemic recovery, potentially driven by digital adaptations (e.g., virtual training) and policy initiatives like Rwanda's Made in Africa program. This analysis highlights how external shocks (e.g., pandemics) and policy shifts shape research trajectories, emphasizing Kaizen's evolving role in the region's industrial setting.

3.3. Sectoral Distribution of Kaizen Implementations (SSA)



Source: Synthesis of 78 studies

Figure 4. Sectoral Distribution.

The adoption of Kaizen principles across industries reveals distinct sectoral concentrations, as illustrated in [Figure 4](#). Textiles and apparel dominate implementations, accounting for 32% of cases, reflecting the labor-intensive nature of the sector and its responsiveness to efficiency-focused methodologies. Food processing follows closely at 28%, driven by multinational corporations and export-oriented firms prioritizing quality control. Automotive manufacturing represents 19% of adoptions, concentrated primarily in Japanese-affiliated assembly plants. Agro-processing, while critical to many African economies, shows relatively lower uptake at 12%, potentially due to fragmented smallholder production systems. The remaining 9% spans diverse manufacturing subsectors, suggesting opportunities for broader Kaizen diffusion beyond current focus areas. This distribution indicates how adoption patterns align with sector-specific characteristics, including supply chain complexity, foreign investment presence, and competitive pressures.

3.4. Potential Benefits of Kaizen in SSA Industries

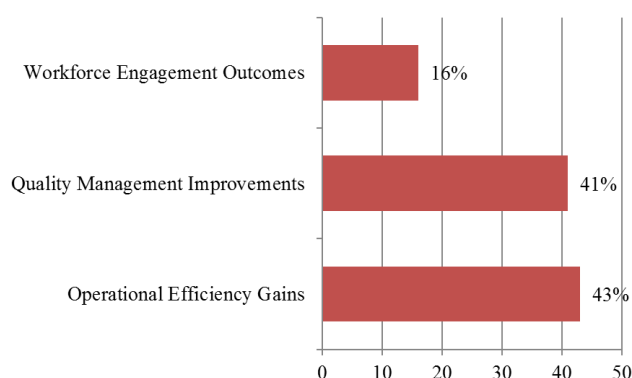


Figure 5. Potential Benefits of Kaizen.

The systematic review of 78 studies, as illustrated in the bar chart, reveals that Operational Efficiency Gains and Quality Management Improvement—reported in 84% (approximately 66 studies)—is the most common outcome of Kaizen implementation in Sub-Saharan Africa suggesting that Kaizen is particularly effective in addressing resource optimization, waste reduction, and productivity improvements—critical needs in Sub-Saharan Africa’s resource-scarce industrial environments. This aligns with Kaizen’s core principles of continuous incremental improvement, which help firms maximize output with limited inputs. For example, according to AKAC [1], Ethiopian textile firms, in particular, have reported substantial efficiency gains, including a 5%-46% in quality improvement, a 10% - 37% improvement in machine utilization rates, and a 15- 39% reduction in partial productivity.

The notably low score for Employee Engagement and Empowerment (16%) highlights a critical challenge in implementing Kaizen’s participatory principles within Sub-Saharan African workplaces. Research indicates that cultural norms, structural constraints, and resource limitations—including resistance to change, inadequate training, and rigid hierarchical structures—frequently impede meaningful employee involvement in continuous improvement initiatives. This disparity reinforces existing critiques that question the direct applicability of Japanese management practices in African contexts without significant local adaptation and contextualization.

3.5. Critical Challenges of Kaizen Implementation (SSA)

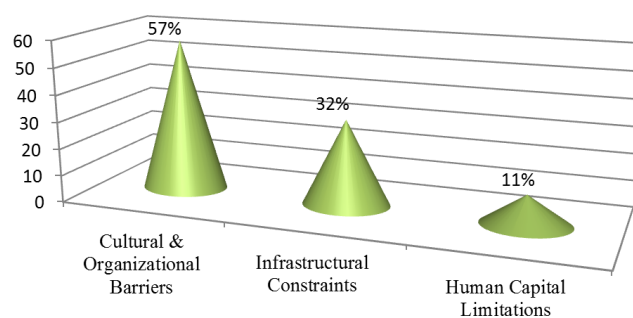


Figure 6. Obstacles to Successful Kaizen Implementation.

The analysis depicted in [figure 6](#) reveals that Cultural & Organizational Barriers are the most significant challenge to operational efficiency, indicating deep-rooted issues such as workplace culture, hierarchical structures, or resistance to change (57% of the studies included in the review). These barriers dominate because they often stem from systemic norms that are difficult to alter without deliberate intervention. For instance, top-down management styles may stifle employee participation, which is critical for continuous im-

provement frameworks like Kaizen. Addressing these cultural obstacles requires strategies such as leadership training, fostering open communication, and aligning organizational values with participatory practices.

In the same figure (figure 6) infrastructural Constraints (32%) represent the second-largest barrier, highlighting gaps in technology, logistics, or utilities that hinder efficiency accounting for 32% of the studies included. While less pervasive than cultural barriers, these constraints can severely limit productivity, particularly in resource-constrained environments like Sub-Saharan Africa. For example, unreliable electricity or outdated machinery disrupts workflow consistency, undermining Kaizen's emphasis on waste reduction. Mitigating these challenges demands targeted investments—such as upgrading equipment or improving supply chains—to create an enabling environment for operational improvements.

Lastly, Human Capital Limitations yields 11% of the studies appear as the least critical barrier, suggesting that skill gaps or training deficiencies are perceived as secondary concerns (details, figure 6). However, this low percentage may mask underlying issues. Some organizations might overlook training needs, focusing instead on visible infrastructural or cultural problems. Alternatively, human capital challenges could be less pronounced in the studied cases, possibly due to prior upskilling efforts. Regardless, even minor skill gaps can compound other barriers, emphasizing the need for balanced interventions that integrate training with cultural and infrastructural reforms.

3.6. Key Success Factors for Sustainable Kaizen Implementation

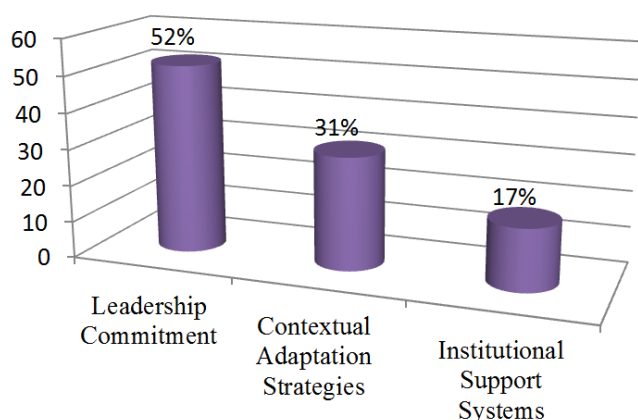


Figure 7. Essential Elements for Achieving Sustainable Kaizen Implementation.

As illustrated in Figure 7, a significant emphasis on leadership—accounting for 52% of studies—highlights its pivotal role as the primary driver of Kaizen success. In Sub-Saharan Africa, where hierarchical organizational cultures often resist

change, strong leadership is essential to foster buy-in and allocate necessary resources for training and infrastructure. Research indicates that leaders who actively embody Kaizen principles, such as engaging in Gemba walks or facilitating continuous improvement workshops, create an environment of psychological safety. This atmosphere encourages employees to embrace new practices and methodologies. The implication is clear: without committed leadership, Kaizen initiatives are likely to remain theoretical constructs, particularly in settings with limited resources or entrenched operational norms.

Moreover, the 31% of studies that focus on contextual adaptation underscore the necessity of tailoring Kaizen approaches to local realities. Many researchers advocate for hybrid models that integrate traditional Kaizen tools—like 5S—with indigenous practices such as communal problem-solving (Ubuntu)—which refers African's philosophical and ethical concept that emphasizes the importance of community, interconnectedness, and mutual care among individuals. For example, small and medium-sized enterprises (SMEs) operating in environments with unreliable electricity or informal labor structures may benefit from simplified and flexible Kaizen methodologies rather than rigid frameworks. This disparity between standardized Kaizen and the practical constraints faced on the ground highlights that adaptation remains under-explored, despite its urgent necessity. Thus, it becomes imperative for policymakers and firms to prioritize context-sensitive Kaizen designs to enhance relevance and sustainability.

Lastly, only 17% of studies address the need for institutional support, indicating a critical gap in both research and implementation (as shown in Figure 7). While effective leadership and adaptation pave the way for initial adoption, institutionalization is vital for ensuring long-term scalability. This could be achieved through policy incentives, such as tax breaks for Kaizen-certified firms, vocational training programs, or the establishment of industry-wide standards. The low percentage of focus on institutional support suggests that Kaizen efforts in Sub-Saharan Africa often remain confined to individual firms or short-term projects, lacking the systemic reinforcement needed for broader impact. This oversight poses a risk of regression, particularly in volatile economic environments where sustained commitment is crucial for success.

4. Strengths & Limitations of the Reviewed Studies

Strengths

The studies reviewed in this systematic literature review offer several strengths that contribute to the understanding of Kaizen as a pathway to industrial transformation in Sub-Saharan Africa (SSA). First, many studies provide empirical evidence demonstrating the positive impact of Kaizen on productivity, operational efficiency, and waste reduction in

African manufacturing firms. These findings align with global Kaizen literature, reinforcing its applicability in diverse industrial contexts. Additionally, several studies adopt a case study approach, offering in-depth insights into how Kaizen has been implemented in specific firms or industries, which helps contextualize its benefits and challenges within SSA's unique economic and cultural landscape.

Another strength is the focus on policy and institutional support, with some studies examining the role of government initiatives, international organizations (e.g., JICA, UNIDO), and private sector partnerships in promoting Kaizen adoption. This highlights the importance of multi-stakeholder collaboration in fostering continuous improvement practices. Furthermore, a few studies incorporate qualitative methodologies, such as interviews and focus groups, to explore employee perceptions and organizational culture changes, providing a more nuanced understanding of Kaizen's human and behavioral dimensions.

Limitations

Despite these strengths, the included studies exhibit several limitations. A major constraint is the predominance of short-term evaluations, with few longitudinal studies assessing whether Kaizen benefits are sustained over time. Many studies rely on self-reported data from firms that have recently adopted Kaizen, which may introduce bias due to the Hawthorne effect or managerial optimism. Additionally, most research focuses on large enterprises or export-oriented industries, neglecting SMEs and informal sector businesses, which constitute a significant portion of SSA's economy. This limits the generalizability of findings across different firm sizes and sectors. Another limitation is the lack of comparative studies across different African countries, making it difficult to determine how varying economic policies, labor markets, and cultural norms influence Kaizen's effectiveness. Many studies also overlook the role of digitalization and Industry 4.0 technologies in enhancing Kaizen practices, despite their growing relevance in modern industrial systems. Finally, while some studies acknowledge implementation challenges—such as resistance to change and weak institutional support—few provide actionable frameworks for overcoming these barriers, leaving a gap in practical guidance for policymakers and practitioners.

5. Gaps in the Current Knowledge Base

Despite growing interest in Kaizen as a tool for industrial transformation in Sub-Saharan Africa (SSA), several gaps remain in the existing literature. First, most studies focus on Kaizen's implementation in large manufacturing firms, neglecting its applicability in small and medium-sized enterprises (SMEs), which form the backbone of SSA economies. There is also limited research on how Kaizen interacts with informal sector dynamics, where a significant portion of economic activity occurs. Additionally, while some studies highlight the short-term benefits of Kaizen, there is insuffi-

cient empirical evidence on its long-term sustainability, particularly in resource-constrained environments with weak institutional support. Another critical gap is the lack of comparative studies across different African countries, making it difficult to assess how varying economic, cultural, and policy environments influence Kaizen adoption and effectiveness. Furthermore, existing research often overlooks the role of digital technologies in enhancing Kaizen practices. With the rise of Industry 4.0 and digital transformation, there is a need to explore how digital tools—such as data analytics, IoT, and AI—can be integrated with Kaizen to improve productivity in African industries. Another understudied area is the intersection between Kaizen and broader industrial policy frameworks. While Kaizen is often promoted as a standalone intervention, its alignment with national industrial strategies, workforce development programs, and innovation ecosystems remains poorly understood.

6. Conclusion

This systematic literature review has synthesized empirical evidence on Kaizen as a Pathway to Industrial Transformation in Sub-Saharan Africa (SSA), addressing critical research questions and objectives to assess its potential as a driver of industrial transformation. The findings reveal distinct patterns in adoption, with Kaizen implementation concentrated in few SSA countries—particularly Tunisia, Ethiopia, Kenya, Nigeria, South Africa, and Tanzania—demonstrating more systematic implementation compared to other sub-regions. Sectoral analysis shows the strongest uptake in textile, food-processing and automotive sectors. The study highlights adaptation strategies that enhance success, such as hybrid models integrating Kaizen with indigenous management practices and digital tools to overcome infrastructure gaps. Yet, significant barriers persist, including limited skilled facilitators, misalignment with informal SME structures, and lack of policy incentives. To scale Kaizen's impact, the review highlights the need for sector-specific guidelines, government-industry partnerships, and long-term capability-building programs. Ultimately, Kaizen presents a viable pathway for SSA's industrial competitiveness, but its transformative potential depends on systemic adoption—combining firm-level commitment with supportive policies and adapted methodologies. By addressing the identified gaps, SSA industrialists can utilize continuous improvement to achieve sustainable growth in an evolving global economy.

7. Lesson Learned and Areas of Future Research

The current understanding of Kaizen's implementation in Africa remains significantly fragmented, mainly due to a reliance on individual case studies. To gain a more com-

prehensive perspective, future research should prioritize comparative studies across multiple African countries. Such studies are crucial for examining how diverse factors like institutions, culture, and economics influence Kaizen's effectiveness. Beyond the commonly explored firm-level productivity, there's a significant gap in understanding Kaizen's macroeconomic effects. Future research should therefore explore how widespread Kaizen adoption impacts broader economic indicators such as employment trends, wage growth, and trade competitiveness. To further advance knowledge, future research needs to explore Kaizen's adaptability across various sectors, particularly within Small and Medium-sized Enterprises (SMEs) and the informal economy, where its potential impact could be transformative. Assessing the long-term viability of Kaizen initiatives in Sub-Saharan Africa (SSA) requires conducting longitudinal studies. These studies should critically examine factors crucial to sustainability, including leadership commitment, employee engagement, and institutional support. Furthermore, gaining valuable insights into the practical challenges of Kaizen adoption necessitates qualitative studies. These could explore socio-cultural barriers such as resistance to change, hierarchical workplace cultures, and informal labor practices, providing crucial information for policymakers and practitioners. Another promising direction for future research involves the integration of Kaizen with emerging digital technologies. Studies could investigate how digital tools can enhance continuous improvement processes, making Kaizen more scalable and data-driven across African industries. Additionally, research should examine how Kaizen can be effectively embedded within national industrial policies to ensure coherence with broader economic transformation agendas.

Abbreviations

AKAC	Africa Kaizen Annual Conference
IoT	Internet of Things
JICA	Japan International Cooperation Agency
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
SME	Small and Medium-sized Enterprises
SSA	Sub-Saharan Africa
UNIDO	United Nations Industrial Development Organization

Conflicts of Interest

The author declares no conflicts of interest.

References

- [1] AKAC, (2023). Kaizen in Ethiopia (Transfer Model–Achievement-KEC Future).

- [2] Atta-Ankomah, R., Appiah Kubi, J., & Ackah, C. G. (2022). The effect of Kaizen on performance: Evidence from manufacturing enterprises in Ghana. *The European Journal of Development Research*, 34(2), 1167-1192.
- [3] Bwemelo G., (2014). Kaizen as a Strategy for Improving SSMEs' Performance: Assessing its Acceptability and Feasibility in Tanzania. *European Journal of Business and Management Vol. 6, No. 35, ISSN 2222-2839*.
- [4] Georgise, F. B., & Mindaye, A. T. (2020). Kaizen implementation in industries of Southern Ethiopia: Challenges and feasibility. *Cogent Engineering*, 7(1), 1823157.
- [5] Ishiwata, A. (2009, October). Needs for Kaizen Activities by African Manufacturer. In *Graduate Institute for Policy Studies (GRIPS) Development Forum October* (pp. 13-21).
- [6] JICA, (2023). JICA Global Agenda for Private Sector Development (No. 4). Strategy for Africa Kaizen Initiative.
- [7] Keijiro, O., Kimiaki, J., & Tetsushi, S. (2018). *Applying the Kaizen in Africa*. Springer Nature.
- [8] Ohno, T. (2019). *Toyota production system: beyond large-scale production*. Productivity press.
- [9] Otsuka, K., & Ben-Mazwi, N. (2022). The impact of Kaizen: Assessing the intensive Kaizen training of auto-parts suppliers in South Africa. *South African Journal of Economic and Management Sciences*, 25(1), 4093.
- [10] Otsuka, K., Jin, K., & Sonobe, T. (2018). *Applying the Kaizen in Africa: A new avenue for industrial development* (p. 266). Springer Nature.
- [11] Page, J. (2015). Structural Change and Africa's Poverty Puzzle. In L. Chandy et al. (Eds.), *Last Mile in Ending Extreme Poverty*. Washington, DC: Brookings Institution Press.
- [12] Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., & Moher, D. (2020). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *bmj*, 372.
- [13] Sahmi, Z., & El Abbadi, L. (2024). The evolution of Kaizen in the industry: Systematic literature review. *International Journal of Production Management and Engineering*, 12(2), 169-179.
- [14] Shimada, G. (2020). Why is kaizen critical for developing countries?: Kaizen as a social innovation in the era of global inequality. In *Workers, Managers, Productivity: Kaizen in Developing Countries* (pp. 69-85). Singapore: Springer Singapore.
- [15] Suzuki, M., & Sakamaki, E. (2020). Opportunities for Kaizen in Africa: Developing the core employability skills of African youth through Kaizen. In *Workers, Managers, Productivity: Kaizen in Developing Countries* (pp. 141-167). Singapore: Springer Singapore.
- [16] Tsuyoshi K., (2023). A Comparative Study of Kaizen Projects in Tunisia and Ethiopia.