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TRANSFORMING PAYMENT PROCESSING THROUGH LEAN AND KAIZEN MANAGEMENT: A MALAYSIAN PUBLIC SERVICE PERSPECTIVE

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ABSTRACT

Lean management has emerged as a transformative methodology for optimizing operational efficiency and reducing waste in various sectors. However, its application within public office environments, particularly in payment processing services, remains underexplored. This study investigates the implementation of Lean and Kaizen methodologies in a Malaysian Government-Linked Company (GLC) responsible for payment processing. Lean management focuses on eliminating waste and optimizing processes, while Kaizen is a continuous improvement strategy that enhances operational efficiency through incremental changes. The study highlights significant inefficiencies in service delivery, with Service Level Agreement (SLA) performance scores fluctuating between 54.68% and 95.16% from January to July 2020, indicating an urgent need for process optimization. Using Value Stream Mapping (VSM), Kaizen burst events, and structured problem-solving techniques, the study identifies key bottlenecks in file movement, verification, and approval processes. VSM is a Lean tool that visualizes and analyzes workflows to detect inefficiencies and streamline operations. Through targeted Lean interventions, the organization successfully achieved a minimum SLA performance threshold of 82%, demonstrating improved workflow efficiency, reduced lead times, and enhanced employee engagement. The findings emphasize the potential of Lean and Kaizen in optimizing administrative processes in the public sector, advocating for wider adoption and further empirical research in this domain.

Keywords: Kaizen, Lean Management, Lead time, SLA Performance, Value Stream Mapping.

1.0 INTRODUCTION

Lean is a systematic approach to enhancing efficiency and effectiveness in various sectors, primarily rooted in manufacturing yet increasingly applied across diverse fields such as healthcare, education, and service industries. The core philosophy of Lean revolves around the identification and elimination of waste, defined as any activity that does not add value to the customer. This methodology emphasizes continuous improvement, respect for people, and the significance of delivering value from the customer's perspective (Jiménez et al., 2021; Koonce & Neutze, 2020; Mrabti et al., 2023).

The origins of Lean can be traced back to the Toyota Production System (TPS), which introduced principles such as Just-In-Time (JIT) production, Jidoka (automation with a human touch), and a strong focus on customer satisfaction (Koonce & Neutze, 2020). Over time, these principles have been adapted and expanded in various contexts, including healthcare, where Lean methodologies have been revealed to improve patient care and operational efficiency (Medjedović et al., 2023; Sonali et al., 2022). For example, studies have demonstrated that implementing Lean tools in hospitals can significantly reduce waiting times and enhance service quality, thereby improving overall patient outcomes (Trakulsunti & Trakoonsanti, 2021).

A critical component of Lean methodology is Kaizen, a Japanese term meaning "continuous improvement," emphasizing the ongoing enhancement of processes, products, and services. Kaizen involves all employees, from management to the shop floor, in identifying areas for improvement and implementing changes that lead to increased efficiency and effectiveness. The relationship between Kaizen and lead time reduction is well-documented in various studies. For instance, the application of Kaizen tools, such as Value Stream Mapping (VSM) and root cause analysis, has been revealed to significantly decrease setup times and improve overall productivity in manufacturing settings. One study reported a reduction in setup time from 28 minutes to just 6 minutes, illustrating the effectiveness of Kaizen in streamlining processes (Surya et al., 2024). Moreover, the implementation of Lean practices, including Kaizen, has been linked to substantial decreases in lead time across different sectors. For example, a case study in a government hospital demonstrated that Lean-based service digitalization reduced lead time from 336 minutes to just 39 minutes, highlighting the transformative impact of Lean methodologies on operational efficiency (Astiena et al., 2022).

In addition to Kaizen, Service Level Agreements (SLAs) and VSM are two critical concepts in Lean management that contribute to operational efficiency and performance improvement. Notably, SLAs are formalized contracts between service providers and their clients that define the expected level of service, including metrics for performance, quality, and response times. In the context of Lean management, SLAs play a pivotal role in ensuring that processes are aligned with customer expectations and organizational goals. They help set clear performance benchmarks, which can be monitored and evaluated to drive continuous improvement. Effective SLA management can enhance operational performance by ensuring service delivery meets or exceeds the agreed-upon standards, fostering accountability and transparency (Engel et al., 2022; Khan et al., 2022). Thus, the integration of SLAs with Lean principles enhances the overall efficiency of service delivery by identifying areas of waste and inefficiency, allowing for targeted improvements. This is particularly relevant in sectors such as healthcare, where the alignment of SLAs with Lean practices can lead to better patient outcomes and optimized resource utilization (Marsilio & Pisarra, 2021; Roey et al., 2023). The dynamic

nature of SLAs also allows organizations to adapt to changing customer needs and market conditions, further reinforcing the significance of flexibility in Lean management (Staifi & Belguidoum, 2021).

VSM is another essential Lean tool employed to visualize and analyze the flow of materials and information throughout a process. VSM helps organizations identify value-added and non-value-added activities, enabling them to eliminate waste and streamline operations. Accordingly, by mapping out the current state of a process, organizations can pinpoint bottlenecks and inefficiencies, which can then be addressed through targeted Lean interventions (Abideen & Mohamad, 2020; Mawardi et al., 2022; Schoeman et al., 2020). The application of VSM is particularly beneficial in complex environments, such as manufacturing and healthcare, where multiple processes interact. A systematic review highlighted that VSM is instrumental in understanding patient care processes and identifying delays, ultimately leading to improved patient flow and service delivery (Tlapa et al., 2020). Additionally, VSM can be integrated with other Lean tools to create a comprehensive approach to process improvement, enhancing both operational performance and customer satisfaction (Thawornsujaritkul & Boonnual, 2024; Thoumy et al., 2022).

Moreover, the integration of Lean with modern technologies, such as Industry 4.0, highlights the adaptability of Lean principles to contemporary challenges, emphasizing the role of data and digital tools in optimizing processes (Jiménez et al., 2021). The synergy between Lean principles and digital technologies further amplifies the benefits of Kaizen and Lean-based tools like SLAs and VSM. The integration of digital tools, such as the Internet of Things (IoT) and cyber-physical systems, enables real-time data collection and analysis, facilitating quicker decision-making and process adjustments (Buer et al., 2020). In addition, this technological enhancement supports the Kaizen philosophy by providing actionable insights that drive continuous improvement initiatives.

The adaptability of Lean methodologies extends beyond manufacturing and healthcare; they have also been effectively utilized in educational settings to streamline processes and enhance learning experiences. For instance, Lean methodologies have been applied to curriculum development and internship placement processes, improving student quality and satisfaction (Singh, 2020). This versatility underscores Lean's potential as a robust framework for continuous improvement across various sectors.

Malaysian Practice

The application of Lean principles in Malaysia has gained significant traction across various industries, particularly in manufacturing, healthcare, services, and public administration. Lean methodologies, which focus on waste reduction, continuous improvement, and enhancing operational efficiency, have been adapted to meet the unique challenges and opportunities present in the Malaysian context. One of the key sectors where Lean has been effectively implemented in Malaysia is the public sector, particularly in Government-Linked Companies (GLCs). Research has suggested that inefficiencies in service delivery often lead to fluctuating SLA performance scores, necessitating process optimization. This case study identified challenges in payment processing operations within a Malaysian GLC, where SLA performance fluctuated between 54.68% and 95.16% over a seven-month period. This highlights the need for systematic improvements. The implementation of VSM, Kaizen burst events, and structured problem-solving techniques helped pinpoint bottlenecks in file movement, verification,

and approval processes, leading to improved workflow efficiency and reduced lead times. As a result, SLA performance stabilized above 82%, demonstrating the effectiveness of Lean methodologies in optimizing administrative functions.

The impact of Lean extends beyond GLCs to manufacturing industries, where Lean tools such as Total Productive Maintenance (TPM), 5S, and Standardized Work (SW) have been widely adopted. Research has indicated that Lean manufacturing practices, including VSM, play a significant role in improving supply chain performance, reducing costs, and enhancing efficiency in Malaysia's batch printing and construction industries (Elhaj et al., 2020). At the same time, a study involving 18 construction sites in Klang Valley assessed the effectiveness of Lean techniques, identifying 5S, Kaizen, and Jidoka as the most utilized tools. These findings highlight the significance of process standardization and continuous improvement in optimizing Malaysia's industrial sectors. Moreover, the integration of Lean principles with Industry 4.0 technologies has been increasingly explored in Malaysia. Studies have revealed that adopting digital solutions alongside Lean methodologies enhances supply chain management, improves resource allocation, and strengthens overall operational performance (Ciano et al., 2020). Notably, Lean Six Sigma has also been applied in Malaysia's pharmaceutical manufacturing sector to address backlogs in customer orders, resulting in greater operational efficiency and improved service delivery (Brian et al., 2021).

The successful adoption of Lean methodologies in Malaysia is influenced by several critical factors, including investment costs, teamwork, Information Technology (IT) infrastructure, employee engagement, and managerial leadership (Osman et al., 2020). Research suggested that organizations that actively train employees on Lean practices and foster a Lean culture achieve higher levels of success and sustainability in Lean implementation (Aripin et al., 2023). The application of Lean management principles in Malaysia differs significantly between the public sector, including GLCs and government agencies, and the private sector. In the public sector, Lean is often implemented as part of broader government initiatives to improve efficiency, service delivery, and bureaucratic processes. However, resistance to change, lack of Lean awareness, and compliance-driven workflows pose challenges to Lean adoption (Zulkeflee et al., 2022). This case study identified inefficiencies such as delays in printing approval letters, file movement, data entry, and voucher verification, all contributing to longer processing times and inconsistent service delivery. To address these inefficiencies, Lean solutions such as Kaizen Daily meetings, process mapping, and red-tagging of Critical files were introduced to prioritize urgent cases, reduce lead time, and improve operational flow. Building on this, the findings suggest that structured Lean interventions can lead to faster decision-making, increased employee engagement, and improved SLA performance, making Lean a valuable framework for administrative service optimization.

Conversely, in the private sector, Lean is primarily driven by competitive pressures and the need to enhance profitability. Private firms focus on cost reduction, productivity improvements, and waste elimination to remain competitive (Buer et al., 2020). For example, manufacturing firms in Malaysia have successfully integrated Lean practices with digital technologies to optimize their operations and respond swiftly to market demands. However, this case study suggested that while Lean implementation in private firms is often goal-oriented, the fast-paced nature of the private sector sometimes results in short-term efficiency improvements rather than long-term sustainable transformation (Aripin et al., 2024). The outcomes of Lean implementation in Malaysia vary across

sectors. In GLCs and public sector organizations, Lean practices have been linked to higher SLA compliance rates, improved service efficiency, and greater process standardization. This case study demonstrated that Lean-driven improvements in a GLC's payment processing operations led to a stable SLA performance of 92% post-implementation, underscoring the effectiveness of structured Lean interventions in administrative functions. Nevertheless, public sector success is often measured qualitatively, focusing on service quality improvements and policy compliance rather than direct financial benefits.

In the private sector, Lean adoption has resulted in cost savings, enhanced production efficiency, and increased competitiveness. Malaysian manufacturing firms that integrated Lean Six Sigma and TPM reported higher operational performance and lower defect rates, reinforcing the financial viability of Lean adoption in industrial settings. Furthermore, studies indicated that Lean-driven improvements in private companies lead to measurable financial gains, with success often assessed through profit margins, lead time reductions, and production cycle improvements (Buer et al., 2020).

Overall, Lean methodologies have been widely adopted across Malaysia's public and private sectors, with GLCs and manufacturing industries highlighting successful case studies of Kaizen, VSM, and Lean Six Sigma implementation. While public sector entities focus on service quality improvements and bureaucratic streamlining, private sector firms prioritize cost efficiency and market responsiveness. This case study demonstrated that Lean interventions can effectively address process inefficiencies in payment processing services, setting a precedent for future applications in financial services, digital payment systems, and other administrative sectors. The integration of Lean with Industry 4.0 and digital automation further enhances its effectiveness, ensuring its relevance in Malaysia's rapidly evolving industrial landscape.

Despite the widespread application of Lean and Kaizen methodologies in manufacturing, healthcare, and private-sector industries, their structured adoption in public sector administrative functions remains underexplored. While Lean practices in manufacturing focus on production efficiency and waste reduction, their effectiveness in optimizing public service processes, such as payment processing within GLCs, has received limited empirical investigation.

This case study examines how Lean principles, particularly VSM and Kaizen Burst Events, can be applied in a Malaysian GLC to enhance process efficiency, reduce lead times, and improve SLA performance. By conducting a detailed analysis of payment processing workflows, this study contributes to the growing body of literature on Lean transformation in administrative functions. The findings offer insights into the practical challenges, implementation strategies, and long-term sustainability of Lean adoption in public sector service delivery.

This case study aims to:

1. Examine the root causes of SLA performance fluctuations in the GLC's payment processing operations.
2. Investigate how Lean and Kaizen tools, such as VSM and Kaizen Burst Events, can optimize administrative workflows.
3. Analyze the effectiveness of Lean-driven process improvements in reducing lead times and enhancing efficiency.

4. Identify the key challenges faced during Lean and Kaizen adoption in a public sector setting, including staff resistance, workflow complexity, and scalability issues.
5. Provide a structured framework for implementing Lean methodologies in similar public service administrative environments.

Preliminary Study

A GLC providing service operations has encountered significant challenges in maintaining consistent SLA performance, particularly between January and July 2020. During this period, SLA scores fluctuated from a low of 54.68% in January to a peak of 95.16% in July, highlighting inefficiencies in operational processes.

Despite ongoing efforts to ensure smooth service delivery, inefficiencies persist across multiple workflow stages. That is, delays have been identified in printing approval letters, file movement, file distribution, data entry, voucher verification, and approval processes. Several factors contribute to these bottlenecks, including low handover frequency, high batch volumes, reliance on manual processes, and inadequate monitoring mechanisms, all resulting in prolonged lead times and inconsistent service quality.

To mitigate these challenges, Lean and Kaizen methodologies have been identified as strategic approaches to streamline operations, reduce lead times, and eliminate inefficiencies. Targeted interventions, including process mapping, Kaizen burst events, and visual management techniques, such as red-tagging Critical files, are being implemented with the objective of achieving a consistent SLA performance of 92% or higher. The integration of Lean and Kaizen principles is expected to enhance operational efficiency, improve employee productivity, and foster a culture of continuous improvement within the organization.

2.0 BACKGROUND

History and Background of GLC Company Policy in Malaysia

GLCs in Malaysia play a crucial role in the nation's economic landscape, serving as key instruments for policy implementation and economic growth. These companies are defined by the government's direct controlling stake, typically held through Government-Linked Investment Companies (GLICs), allowing strategic influence over their operations (Subramaniam et al., 2023). Moreover, this structure ensures that GLCs align with national objectives, particularly in sectors deemed essential for economic stability and development (Chang & Ng, 2022). Beyond their economic contributions, GLCs are also expected to uphold high standards of corporate governance, as outlined in the Malaysian Code of Corporate Governance (MCCG), promoting transparency, accountability, and sustainable business practices (Loang et al., 2022). However, governance challenges remain, with concerns over operational efficiency and corporate accountability being central to discussions about their long-term effectiveness (Tee et al., 2022). Thus, studies have proven that strong governance frameworks significantly enhance financial performance and stakeholder confidence (Girau et al., 2021).

The historical evolution of GLCs in Malaysia has been shaped by national policies and economic transformations. Their establishment can be traced back to the New Economic Policy (NEP) of 1971,

which aimed to address economic disparities, particularly by increasing Bumiputera's participation in the corporate sector (Chang & Ng, 2022). Initially, GLCs were concentrated in critical industries such as infrastructure, finance, and utilities. Over time, their role expanded in response to various economic challenges, including the 1997 Asian Financial Crisis, highlighting inefficiencies and governance shortcomings within these entities, prompting the government to implement reforms for improved transparency and accountability (Shahar et al., 2020). Furthermore, the MCCG was introduced in 2000**.** marked a significant milestone, establishing governance standards to ensure that GLCs operated with greater efficiency and integrity (Shahar et al., 2020). Later policies, such as the Government Transformation Program (GTP) and the Economic Transformation Program (ETP), further reinforced the role of GLCs in driving Malaysia's economic agenda while maintaining high governance standards (Loang et al., 2022). More recently, GLCs have been encouraged to integrate Environmental, Social, and Governance (ESG) principles into their operations, reflecting a global shift towards corporate sustainability and responsible business practices (Shahrun et al., 2023).

The governance and operational framework of GLCs is shaped by key policies designed to enhance corporate accountability, efficiency, and alignment with national development goals. The MCCG, first introduced in 2000 and revised in subsequent years, provides governance guidelines emphasizing board independence, transparency, and ethical leadership (Ariffin et al., 2023). Additionally, national development plans such as the Eleventh Malaysia Plan (2016-2020) and Twelfth Malaysia Plan (2021-2025) outline strategic priorities that GLCs must align with, focusing on sustainable economic growth and social inclusion (Abdullah et al., 2022). Simultaneously, major initiatives, such as the GTP and ETP, aim to enhance the efficiency of GLCs, improve service delivery, and encourage private-sector collaboration (Lim et al., 2020). The government also mandates Corporate Social Responsibility (CSR) initiatives within GLCs, ensuring that their contributions extend beyond financial performance to include social and environmental sustainability (Chang & Kumar, 2021).

Several key government institutions oversee and regulate GLCs to ensure their alignment with national objectives. The Ministry of Finance plays a central role in policy direction, overseeing board appointments and strategic decision-making. Meanwhile, Khazanah Nasional Berhad, the government's strategic investment arm, manages GLC investments to drive economic growth and long-term sustainability. At the same time, the Securities Commission Malaysia enforces corporate governance standards, ensuring compliance with the MCCG and fostering investor confidence through transparency and regulatory oversight (Ridzuan et al., 2022). These institutions collectively strengthen governance, encourage operational efficiency, and promote sustainability within GLCs, reinforcing their role as key contributors to Malaysia's economic growth.

Looking ahead, the government is expected to emphasize sustainability and ESG integration in GLC operations, aligning with global standards to enhance competitiveness and accountability (Subramaniam et al., 2023). This shift reflects a broader recognition of the need for GLCs to balance profitability with social and environmental responsibility. Notably, the increasing focus on ESG principles requires GLCs to adopt sustainable business models, improve transparency, and engage in ethical decision-making to meet evolving stakeholder expectations. Despite that, strengthening governance frameworks remains a priority, with an emphasis on board independence, corporate disclosure, and performance monitoring to minimize risks associated with inefficiencies and mismanagement. Hence, the government is also likely to introduce stricter compliance measures to

ensure that GLCs uphold international best practices in corporate governance and accountability (Hassan et al., 2021).

Reducing political interference is another crucial aspect of reform, as efforts are being made to separate political influence from business decision-making. This involves implementing merit-based appointments for leadership positions, reinforcing regulatory oversight, and adopting policies that prioritize long-term financial sustainability over short-term political gains. By fostering greater operational independence and reducing reliance on government support, GLCs can enhance their efficiency and credibility in both domestic and international markets. Nevertheless, financial sustainability remains a key concern, requiring GLCs to focus on strategic investments, innovation, and digital transformation. Thus, leveraging technology and automation can improve efficiency, optimize resource utilization, and expand market reach. Additionally, strengthening partnerships with private sector entities and international investors can bolster the financial position of GLCs, enabling them to remain competitive in an evolving economic landscape.

The future trajectory of GLCs in Malaysia will be shaped by ongoing reforms to ensure they remain competitive, transparent, and aligned with national economic goals. By embracing sustainability, enhancing governance, and promoting financial resilience, GLCs can continue to serve as key drivers of economic development while maintaining accountability to the broader society. Despite these challenges, the future outlook for Lean implementation in GLCs is promising. The Malaysian government has increasingly recognized the significance of Lean methodologies in enhancing productivity and competitiveness. Accordingly, initiatives aimed at promoting Lean practices are being integrated into broader economic policies, such as the Eleventh and Twelfth Malaysia Plans, which emphasize sustainable development and efficiency in public sector operations (Rochman et al., 2024).

Furthermore, the ongoing digital transformation across industries presents an opportunity for GLCs to leverage technology in their Lean initiatives. The integration of digital tools can facilitate better data collection, process mapping, and performance monitoring, thereby enhancing the effectiveness of Lean practices (Thakur et al., 2021). For instance, the use of data analytics can help identify inefficiencies and areas for improvement, enabling GLCs to make informed decisions that align with Lean principles (Akram et al., 2024). As GLCs continue to embrace digital transformation and process optimization, Lean methodologies will play a vital role in ensuring operational efficiency, cost reduction, and sustainable business growth.

Case Study: Operational Excellence in a Government-Linked Company (GLC)

This case study examines a GLC that provides essential services to civil servants. Operating within the financial services sector, the organization manages and processes payments while ensuring efficient and timely service delivery to a diverse range of stakeholders. As a key entity supporting the nation's civil service infrastructure, the organization is mandated to uphold high standards of operational excellence.

In recent years, the organization has encountered mounting challenges due to increasing transaction volumes, complex workflows, and limited resources. These issues resulted in extended lead times, process bottlenecks, and inefficiencies in file management and verification procedures. Recognizing

the need to address these challenges while maintaining SLAs, the organization adopted Lean principles and Kaizen methodologies to streamline operations and enhance overall efficiency.

Implementation and Success:

The adoption of continuous improvement methodologies led to significant operational enhancements, including:

a.   Reduction in Lead Times: Streamlined workflows minimized processing steps, enabling faster and more efficient service delivery.
b.   Standardization of Processes: Clear and consistent task execution guidelines reduced errors and ensured quality control.
c.   Enhanced Collaboration: Cross-functional team initiatives fostered a collaborative work environment, breaking down silos between departments.
d.   Cultural Shift: The implementation of Kaizen Daily Meetings and other structured improvement practices nurtured a culture of continuous innovation and efficiency.

A key outcome of these initiatives was a significant reduction in direct treatment lead time, which was streamlined from six steps to four. Additionally, team engagement improved through initiatives such as frequent Kaizen meetings and a "team of the month" program, reinforcing morale and sustaining continuous improvement efforts.

Contribution to the GLC Framework

This case study highlights the successful application of Lean and Kaizen methodologies within a GLC to address operational inefficiencies and enhance service delivery. The organization's achievements align with the broader objectives of the GLC Transformation Program, which emphasizes performance enhancement, governance, and socio-economic contributions.

By leveraging continuous improvement strategies, this GLC not only improved its operational efficiency but also established a benchmark for similar organizations navigating the complexities of public service delivery. The findings from this case study offer valuable insights for policymakers, other GLCs, and private sector entities seeking to optimize processes and adapt to evolving challenges.

3.0 BUSINESS ISSUES

Delays in Service Delivery

The organization has been experiencing prolonged delays in completing official procedures, impacting the efficiency and reliability of service delivery. These delays primarily stem from accumulated backlogs, extended lead times, and inefficient workflow processes. As a result, the organization struggles to consistently meet internal SLAs, leading to reduced stakeholder satisfaction and operational inefficiencies. Correspondingly, addressing these challenges requires a comprehensive process evaluation and the implementation of structured workflow optimization strategies to enhance service responsiveness and maintain consistent performance levels.

Limited Adoption of Lean Methodology

The slow adoption of Lean methodology within the organization presents a significant barrier to process efficiency and continuous improvement. While Lean focuses on eliminating waste, optimizing processes, and enhancing productivity, the lack of staff familiarity and training has hindered its successful implementation. Resistance to change, a steep learning curve, and unclear transition strategies further complicate the adoption process. Hence, ensuring the successful and sustainable integration of Lean methodologies requires structured training programs, clear implementation roadmaps, and active leadership support to align employees with efficiency-driven practices.

Inefficiencies in Task Management and Workflow Prioritization

The organization faces task allocation and prioritization challenges, leading to poor resource utilization and extended completion times for key operational activities. In particular, the absence of a streamlined task management framework results in workflow bottlenecks, increased backlogs, and reduced operational agility. Consequently, these inefficiencies disrupt day-to-day service delivery and limit the organization's capacity to manage new responsibilities effectively. Thus, implementing structured task delegation, process automation, and workload balancing strategies is crucial to ensuring faster execution and improved operational efficiency.

Knowledge Gaps and Lack of Expertise in Continuous Improvement Practices

The lack of employee exposure to Lean and Kaizen methodologies poses a significant barrier to operational optimization. That is, insufficient training and limited awareness prevent employees from effectively implementing process improvement strategies. Without structured learning programs and professional development initiatives, staff may struggle to understand the benefits and practical applications of Lean principles, reducing the effectiveness of improvement efforts. In line with this, investing in comprehensive training, knowledge-sharing platforms, and leadership-driven change initiatives is essential to empowering employees and fostering a culture of continuous improvement.

Risk of Workflow Disruptions During Process Optimization

Introducing new methodologies, such as Kaizen and VSM, carries the potential risk of temporary disruptions to existing workflows. While these changes aim to enhance efficiency and long-term service reliability, their initial implementation may reduce productivity and create operational uncertainties. Moreover, employees require time to adapt to new processes, and any mismanagement during the transition phase could result in additional delays, confusion, and resistance. Therefore, to mitigate these risks, the organization must develop a structured change management strategy, phased implementation plans, and ongoing monitoring systems to ensure seamless integration with minimal operational disruptions.

4.0 PROBLEM STATEMENT

The agency's SLA performance has exhibited significant fluctuations over time, particularly in 2020, where scores ranged between 54.68% and 95.16%, highlighting critical inefficiencies in payment processing workflows. Figure 1: Monthly Performance Comparison (2019 vs. 2020) further illustrates

these inconsistencies, illustrating how performance trends deteriorated or fluctuated over the two-year period. These variations indicate process bottlenecks, delays in document handling, and inconsistent verification procedures, necessitating a comprehensive process re-engineering approach to enhance operational efficiency and service reliability.

Figure 1 Monthly Performance Comparison: 2019 vs. 2020
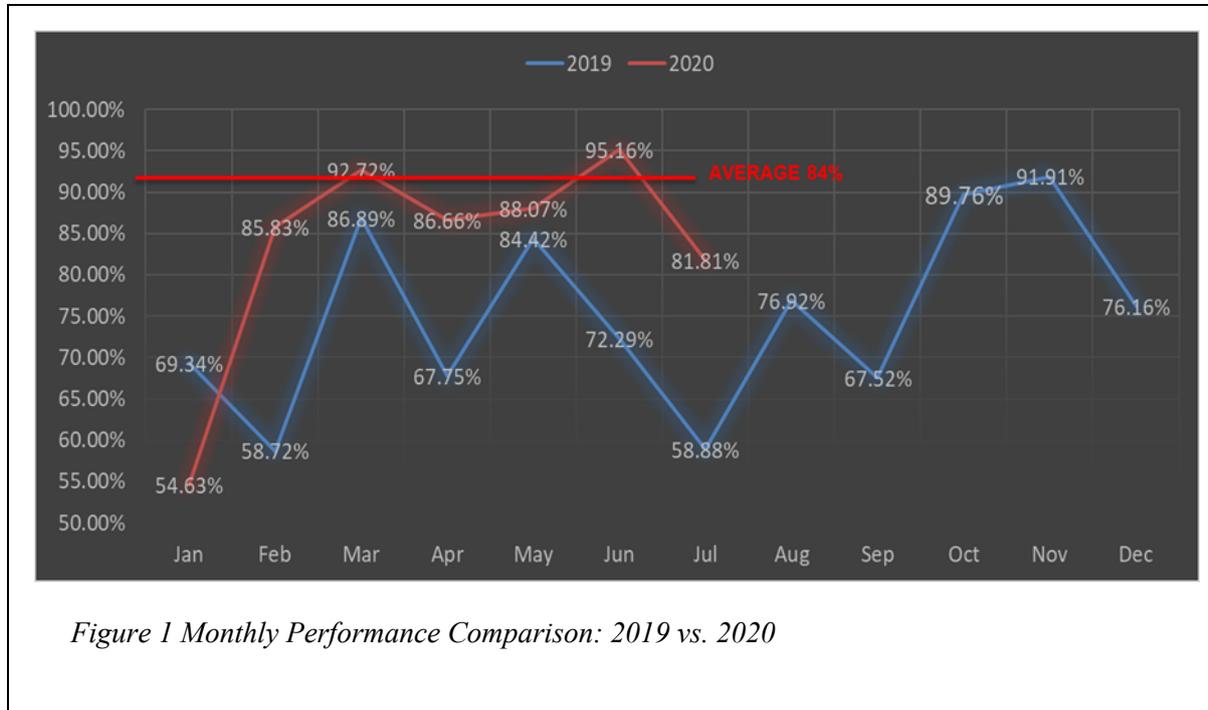
Prior to the implementation of Lean methodologies, SLA performance was highly inconsistent, leading to delays in fund disbursement, inefficient document approvals, and excessive manual interventions. The comparison between 2019 and 2020 (Figure 1) further underscores the impact of operational inefficiencies, as performance trends failed to sustain improvements over time.

To address these challenges, the agency launched a Rapid Process Improvement (RPI) initiative aimed at analyzing current operations, identifying inefficiencies, and establishing structured process enhancements. This initiative serves as a baseline for evaluating process inefficiencies while ensuring that SLA performance becomes more consistent and sustainable over time. The primary objective of the RPI initiative is to identify and eliminate operational inefficiencies, improve service responsiveness, and create a long-term framework for continuous process optimization.

The RPI initiative focuses on delivering actionable and practical solutions that can be implemented within a reasonable time frame. By identifying key process bottlenecks, streamlining workflows, and addressing manual inefficiencies, the initiative seeks to create a structured roadmap for long-term process optimization. This approach aligns with Lean and Kaizen methodologies, ensuring that process improvements are not only effective in the short term but also embedded into the agency's operational framework for sustained efficiency and enhanced service delivery. Furthermore, while Lean methodologies have successfully optimized workflows in various industries, public sector agencies often face additional challenges, such as bureaucratic constraints, regulatory requirements, and limited technological integration. Notably, many private sector organizations have successfully

integrated Lean principles alongside digital automation and predictive analytics, enhancing real-time process monitoring and decision-making (Koç & Alpar, 2023; Valente et al., 2019). Comparatively, public sector agencies remain heavily reliant on manual workflows and incremental process enhancements, which may restrict the full potential of Lean methodologies in sustaining efficiency gains.

To ensure the long-term success of the RPI initiative, the agency must consider scaling Lean efforts beyond manual process optimization by integrating automation, predictive analytics, and real-time performance tracking systems. Additionally, a comparative analysis of private sector best practices can provide valuable insights into sustaining Lean-driven improvements and ensuring long-term operational resilience. Thus, this study aims to examine process inefficiencies within the agency's payment processing workflow, assess the impact of Lean methodologies, and identify best practices from private sector organizations that could be adapted to enhance process efficiency and service reliability in public sector payment operations.

5.0 ANALYSIS

Case Analysis

Lean methodologies are widely recognized across industries for their ability to optimize processes, improve efficiency, and reduce waste. However, their application in office environments, particularly in payment processing workflows within public sector organizations, remains relatively under-explored. Unlike structured production systems in manufacturing, office-based processes often lack standardized workflows, making Lean adoption more challenging.

Before Lean implementation, the agency faced significant inefficiencies in its payment processing system, leading to fluctuating SLA performance. As illustrated in Figure 1: Monthly Performance Comparison (2019 vs. 2020), SLA scores ranged from 54.68% to 95.16% in 2020, highlighting inconsistencies in workflow execution, processing delays, and procedural bottlenecks. These inefficiencies resulted in long lead times, duplicated efforts, and approval delays, negatively impacting overall service delivery.

Key Bottlenecks Identified

A root cause analysis identified the following major contributors to inefficiencies in payment processing:

i. Low task handover frequency → Staff delays in transferring tasks, leading to backlogs.
ii. High batch volumes → Large work queues resulted in processing delays.
iii. Delays in document submission → Caused by staff procrastination and approval bottlenecks.
iv. Outdated working methods → Insufficient automation and reliance on manual processes.

The organization launched an RPI initiative to address these challenges, leveraging Lean methodologies such as VSM, Kaizen Burst Events, and Structured Problem-Solving to identify

bottlenecks and streamline processes. The initiative aimed to enhance SLA performance, reduce inefficiencies, and establish a sustainable operational excellence framework.

Lean Implementation Process

The Lean implementation was executed in two major phases, focusing on training and execution:

1. Lean Event and Project Presentation (March 2020)

- Lean and Kaizen principles were introduced to the operations and payment processing teams.
- Employees were trained on waste identification, process standardization, and continuous improvement strategies.

2. Priorities Identification and Pilot Team Selection

- Key processes were mapped and analyzed for bottlenecks.
- A 25% efficiency improvement target was set for each process.
- The operations team was chosen as the pilot group to test Kaizen-driven process refinements before scaling the improvements organization-wide.

As detailed in **Table 1: Kaizen Approach Levels**, the implementation process followed a structured framework with distinct levels:

Table 1

Kaizen Approach Levels

| No	Level	Objective
1	Team Organization	• Waste Awareness and Setting Objectives • 5s Practice • Team Board and Suggestion • System
2	Visible Best Practices	• Quality Visual Standards • Time Visual Standards • Other Visual Standards
3	Process Improvement	• Process Mapping • Structured Problem Solving
4	Autonomous Teamwork	• Daily "Gemba" Management • Strategy Deployment

Kaizen Burst Events and Rapid Process Improvement (RPI)

A Kaizen Burst Event (RPI) addressed inefficiencies in payment processing workflows. The goal was to achieve 80% process improvements within a short timeframe, with the remaining improvements implemented within 30 days. As illustrated in Figure 2: Kaizen Framework for Process Improvement,

the organization applied a systematic approach to identifying and resolving inefficiencies using Kaizen principles.

Figure 2 Kaizen Framework for Process Improvement
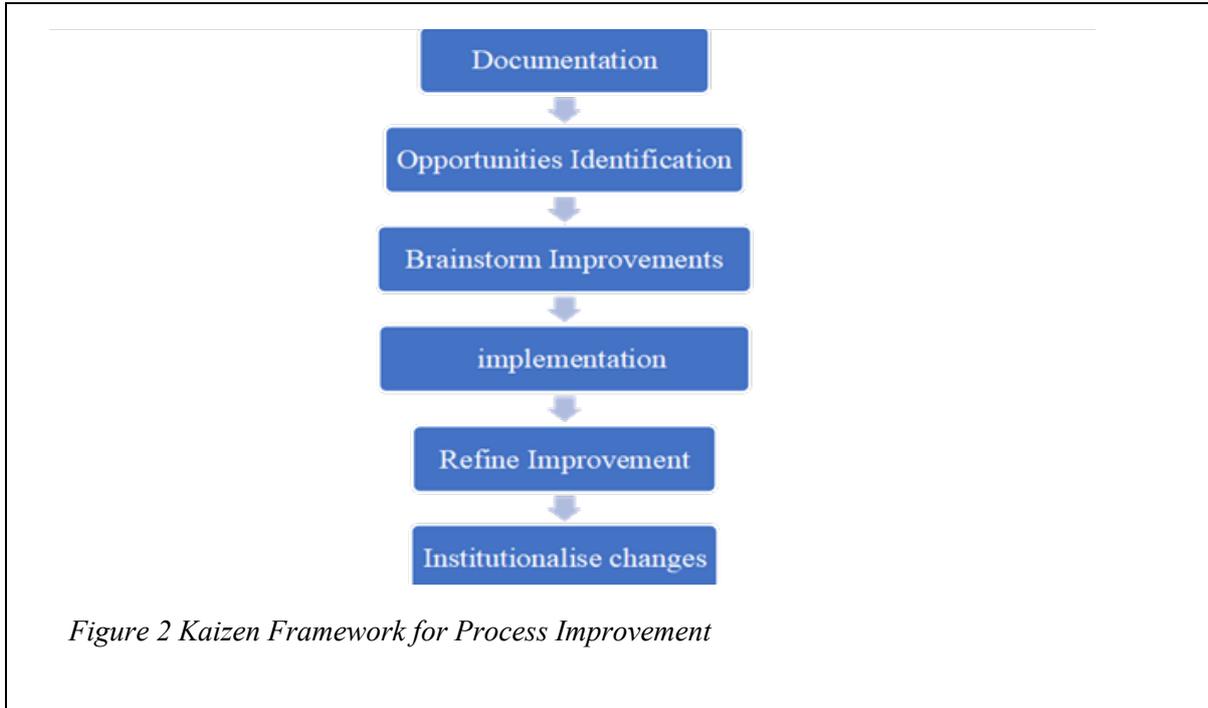
As depicted in Figure 3: Kaizen Burst Events Overview in Payment Processing Workflow, the organization identified six major process inefficiencies and applied the Kaizen framework to systematically resolve them:

Figure 3 Kaizen Burst Events Overview in Payment Processing Workflow
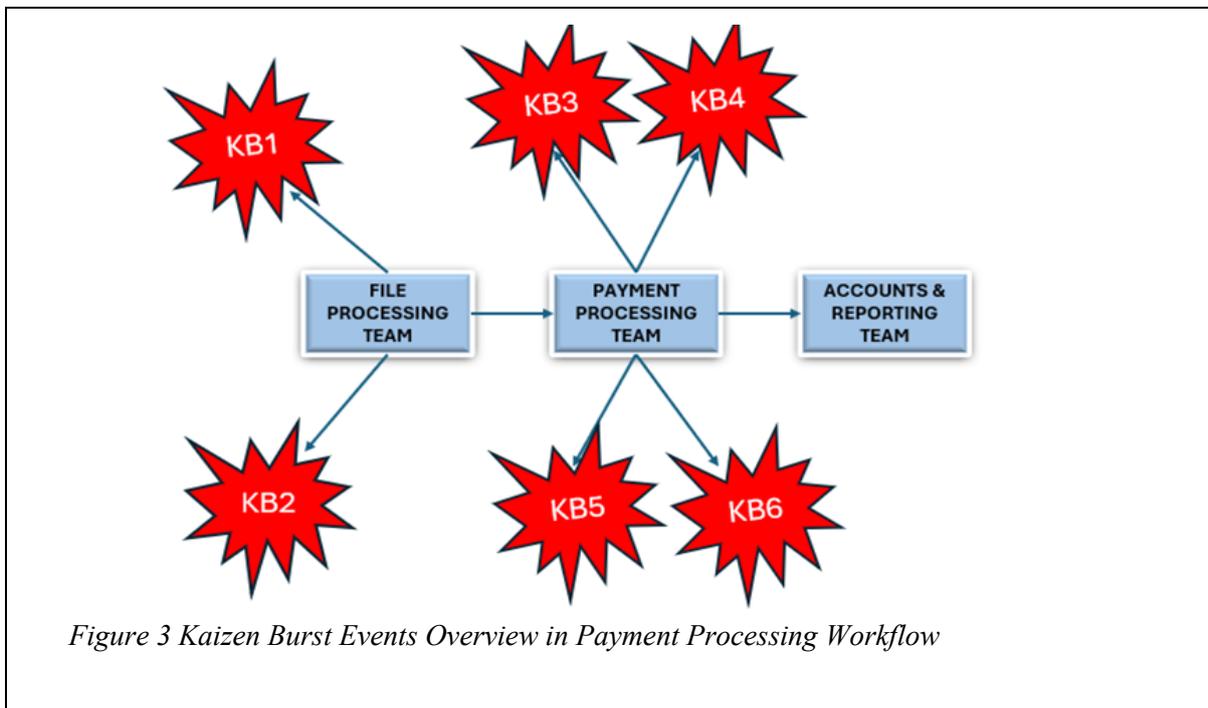
The Kaizen Burst Events Overview highlights six key inefficiencies in different processing teams, with targeted interventions:

Table 2

Key Inefficiencies and Solutions Applied

Process Stage	Key Issues Identified	Kaizen Solutions Applied
Approval Letter Processing	Long lead times, slow task handover, outdated processes	Introduced digital approval tracking, streamlined verification
File Movement Entry	Low prioritization of urgent files	Implemented senior clerk prioritization system
Critical File Distribution	Delays due to low handover frequency, high batch volumes	Red-tagged urgent cases, immediate processing policy
Data Entry Processing	Large batch sizes, inefficient file retrieval	Structured file organization, priority-based processing
Voucher Verification	Bottlenecks in workflow, lack of tracking	Red-tagging priority cases, one-hour verification policy
Voucher Approval	Work queues, lack of real-time monitoring	Supervisor end-of-day queue checks, structured approval timelines

The results demonstrate that Lean and Kaizen methodologies were successful in optimizing workflows, reducing inefficiencies, and achieving consistent SLA compliance. Moving forward, the focus should be on sustaining these improvements through digital automation, predictive analytics, and continuous workforce training.

Comparison with Private Sector Lean Implementation

While the public sector's Lean adoption has demonstrated measurable improvements, a comparative analysis with private sector implementations highlights key opportunities for further enhancement, as presented in Table 3.

Table 3

Comparison of Lean Adoption in Private vs. Public Sector

Factor	Private Sector Lean Adoption	Public Sector Lean Adoption (This Study)
Lead Time Reduction	30-40% improvement (Valente et al., 2019)	Achieved 25-30% reduction through Lean interventions
Process Automation	Fully integrated with digital tools and AI (Raji et al., 2021)	Limited automation and manual workflows are still present

Employee Engagement	Continuous training and Lean-based incentive programs (Koç & Alpar, 2023)	Improved engagement but cultural shifts are still required
Real-Time Performance Tracking	Automated dashboards and predictive analytics	Limited tracking, dependent on periodic assessments
SLA Performance Consistency	Maintained at 90%+ annually	Fluctuated in early years, stabilized post-2022
Bureaucratic Challenges	Lower barriers to process changes	Regulatory constraints and rigid policies slow down improvements

6.0 SOLUTION: WASTE AND KAIZEN

The recommended solution based on the Kaizen approach is discussed in this section. This process consists of five stages as follows. Note that more details are presented in Appendix C.

Approval Letter Printing

The approval letter, which serves as written consent for an activity, faces delays primarily due to long lead times in the processing team. Lead time refers to the duration required to complete a process from start to finish. The main causes of the extended lead time include:

- Low handover frequency, where staff delays task transfer, reducing the frequency of task completion.
- High batch volumes refer to the increased workload and processing time.
- Delays in submission to the payment processing team are often due to procrastination among workers.
- Inefficiencies in working methods, along with insufficient technological use, as the system remains outdated.

Kaizen solutions were introduced to streamline the approval letter printing process by minimizing the steps involved. First, creating a list of approved Critical files helps control input. Second, the approval letter is only printed when required for postage. Note that physical approval Critical files can be submitted directly to the payment processing team without printing. Third, organizing approval for Critical files by stapling and stacking reduces confusion and the risk of misplacement. Lastly, approval letters printed for postage are forwarded to staff overseeing the postage process. These strategies aim to reduce lead time and address issues in the approval letter printing process.

File Movement Entry

The second stage of the process is performing the file movement entry in the system to the payment processing team. To overcome this issue, Kaizen has proposed a senior clerk who can prioritize Critical files by tagging the most urgent ones.

Critical files distribution

The third stage of the process is the distribution of the Critical files to the preparer. A delay was also noticed when distributing the Critical files to the preparer. The main cause of the delay during the Critical files distribution process to the person in charge, who is known as the preparer, is the low frequency of the handover process among the working staff in charge of the Critical files. This includes high volume per batch with large quantity, presence of homogeneity, lack of monitoring of the tasks in distributing Critical files to the preparer, and presence of no differentiation in the type of the cases and the transport file. These six causes affect the lead time and delay the distribution of the Critical files to the preparer. Thus, the Kaizen solution has recommended three solutions that can be applied to overcome this issue. For example, the application with red colored tags on all the death in service Critical files that have occurred, setting priority for Critical files for ease of immediate passing over of the Critical files to take place to reduce time consumption, and the process of the distribution of the Critical files are given high priority to ensure that the delivery takes place on the same day as the receipt from the operation team. These three methods of solution can reduce time consumption and wasting of time during the process of distribution of the Critical files to the preparer.

Data Entry

The fourth stage of the process is keying in the data entry in the system. This process is significantly affected by the long lead time for the preparer of the case due to several factors: high time consumption caused by the large quantity of Critical files in each batch; the "last in, first out" retrieval of Critical files due to improper arrangement without prioritization; low handover frequency among staff in charge; bottlenecks in certain processes leading to inefficiencies; lack of monitoring of employees during task execution; absence of differentiation or special tagging for prioritizing cases; and issues with SLA calculation.

To address these issues, four solutions were recommended by the Kaizen solution. Firstly, red color tags should be added to important cases to differentiate and prioritize them. The Payment Processing Team's Admin Unit will distribute Critical files tagged in red to preparers quickly, ensuring prioritization. Preparers will process these tagged Critical files first. Secondly, every hour, the Admin Unit will conduct a walk-through of preparers' tables to collect tagged Critical files and promptly distribute them to verifiers to ensure progress monitoring. These solutions aim to reduce lead time in distributing Critical files to preparers.

Voucher Verification

The fifth stage of the process is the verification of the voucher. Delays at the verifier level were attributed to low handover frequency between employees, high waiting time due to large batch volumes, inefficiencies caused by bottlenecks in specific processes, homogeneous file conditions, inadequate monitoring of staff during tasks, and lack of differentiation to prioritize Critical files.

The Kaizen solution proposed measures to reduce waiting periods and enable timely verification. Solutions include tagging cases with red color tags for ease of identification and prioritization. Critical files with red tags will receive top priority during processing. Moreover, to address inefficiencies caused by insufficient monitoring, the Payment Processing Team administrator will oversee file

movement and establish a one-hour timeframe for processing each file. Note that monitoring should ensure all Critical files are verified and approved on the same day to avoid delays in the verification process.

Voucher Approval

The final stage involves voucher approval, which is often delayed due to prolonged lead times caused by low handover frequency among staff, large batch volumes, inadequate monitoring, and the absence of case differentiation to ease prioritization.

To overcome these challenges, the Kaizen solution recommended four measures. First, differentiation should be implemented by tagging important Critical files with red tags. Second, high batch volumes should be managed by reducing batch sizes and ensuring Critical files are distributed to approvers as soon as reviewers complete their tasks. Third, supervisors should perform end-of-day queue verifications via the system to identify and address outstanding Critical files promptly. These solutions are designed to streamline the approval process and minimize delays.

Daily Kaizen

Daily Kaizen is a methodology aimed at developing teams and enhancing teamwork within natural teams (teams that naturally work together in the same area). This involves daily meetings to monitor standards and goals, solve problems on the work floor, and share ideas. These meetings also enable teams to become more autonomous while embedding continuous improvement practices into their routine. However, implementing Daily Kaizen was initially challenging due to the difficulty in changing established habits and routines.

To start, each work team was requested to prepare performance indicators reflecting their daily activities. Team leaders, together with their teams, selected suitable indicators for discussion during Daily Kaizen Meetings. These indicators were compiled on boards for easy daily reference, increasing control and efficiency. Once team boards were in place, daily meetings were introduced to monitor work progress. This tool proved highly effective in managing both improvement projects and daily problem-solving tasks.

Performance Indicator

A critical performance indicator for stakeholders in this study is lead time reduction, which significantly improved across various processes following the Lean and Kaizen implementations. As displayed in Figure 7, the targeted process mapping and Kaizen solutions effectively streamlined key workflow inefficiencies. These improvements align with the second principle of Lean Thinking: "Mapping the Value Stream," which is a fundamental tool for optimizing office-based processes. Research highlights that VSM is instrumental in identifying waste, standardizing workflows, and enhancing process transparency, making it a key enabler of Lean-driven efficiency gains in service-based environments (Koç & Alpar, 2023; Valente et al., 2019).

Following the Lean transformation, the momentum of continuous improvement remained embedded in the system, enabling the Payment Processing Team to exceed SLA targets consistently. Prior to Lean implementation, SLA performance exhibited fluctuations from 54.68% to 95.16% in 2020, reflecting inefficiencies in document movement, approvals, and processing workflows. Post-implementation, SLA performance stabilized and consistently exceeded 92%, with 2024 nearing 100% compliance. The primary performance objective of the project was to maintain a minimum SLA score of 92% on a monthly basis. This benchmark was derived from:

Baseline SLA performance (84% average score before Lean implementation).

Performance gap correction (+8%), calculated as 16% bad percentage divided by 2 to represent a realistic improvement trajectory.

Post-Lean Implementation SLA Performance Trends

Following the implementation of Lean and Kaizen methodologies, SLA performance significantly improved across the payment processing workflow, demonstrating the effectiveness of structured process optimization. The improvements in SLA performance over the years are summarized in Table 2: SLA Performance Trends (2020-2024).

Table 4

SLA Performance Trends (2020-2024)

Year	SLA Performance (%)	Performance Description
2020 (Pre-Lean Implementation)	54.68% - 95.16%	Fluctuated significantly, indicating inconsistent service delivery.
2021 (Initial Lean Adoption)	82% - 97.5%	Marked improvement due to Lean adoption, showcasing structured process optimization.
2022 (Stabilization Phase)	95.8% - 98.5%	Sustained efficiency gains with consistent performance levels.
2023 (Continuous Improvement Embedded)	98.2% - 99.5%	Lean principles embedded, maintaining process excellence.
2024 (Near-Perfect SLA Performance)	99.5% - 100%	Full integration of Lean methodology, achieving near-perfect SLA compliance.

7.0 CONCLUSION AND RECOMMENDATION

Conclusion

This case study demonstrated the effectiveness of Lean and Kaizen methodologies in optimizing payment processing workflows within a Malaysian GLC. Before Lean implementation, SLA performance exhibited fluctuations between 54.68% and 95.16%, highlighting inconsistencies in workflow efficiency. Post-implementation, SLA performance stabilized above 92%, with recent months achieving near 100% compliance. The structured application of VSM, Kaizen Burst Events, and process standardization led to a 25-30% reduction in lead time, improved task prioritization, and increased efficiency in document verification and approval processes.

This study highlights the transformative potential of Lean methodologies in administrative environments and underscores key challenges, including staff resistance, process complexity, as well as scalability issues. Note that addressing these challenges required a structured change management approach, workforce training, and process automation. The study provides empirical evidence supporting the feasibility of Lean adoption beyond manufacturing, reinforcing its value in government service optimization. However, the findings also reveal that sustaining these improvements requires continuous engagement, training, and alignment with digital transformation initiatives.

Recommendations and Future Research Directions:

To ensure the long-term sustainability of Lean and Kaizen improvements, organizations must integrate key process enhancements with automation, culture building, and structured tracking mechanisms. First, expanding process automation and digital integration is crucial. The implementation of workflow automation tools can minimize reliance on manual processes, while real-time performance monitoring dashboards will enable proactive tracking of SLA compliance and process delays. Hence, digital transformation should be leveraged to optimize administrative workflows further.

Second, organizations should strengthen Lean culture and continuous improvement initiatives by establishing mandatory Lean training programs to embed a mindset of continuous process optimization. Therefore, employee engagement can be enhanced through incentive structures that encourage participation in Lean practices, while regular Kaizen events should be conducted to sustain improvements. Managing staff resistance remains a critical success factor, and structured communication, involvement in process refinement, and leadership support are necessary to ensure smooth adoption.

Third, improving SLA tracking and reporting mechanisms is essential for maintaining efficiency gains. The introduction of real-time SLA tracking dashboards will provide visibility into process performance, while automated alerts for process delays will ensure timely interventions. Additionally, organizations should adapt Lean tools for administrative processes beyond manufacturing, ensuring they align with office-based workflows.

Finally, future research should explore the long-term impact of Lean and Kaizen methodologies in public sector environments and compare Lean adoption challenges between government-linked and private-sector organizations. Further studies could also examine the role of digital transformation in

enhancing Lean implementation in service industries, particularly in automating repetitive tasks, improving decision-making, and fostering data-driven process optimization. By addressing these areas, organizations can maximize the benefits of Lean methodologies while ensuring sustained efficiency and service quality improvements.

8.0 CONFLICT OF INTEREST

I declare that there is no conflict of interest regarding this study.

9.0 ACKNOWLEDGMENT

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11.0 APPENDIX A

Waste Identification

NO.	LOCATION	PROCESS	PROBLEM	WASTE TYPE
1.	Processing Team	Print Approval Letter	Long lead time to print approval letter in Processing Team	W, I, E
2.	Processing Team	Perform File Movement Entry in the system to Payment processing team	Delay in performing file movement entry in the system to Payment processing team	W, I
3.	Payment processing team	Distribute File to Preparer	Long time taken to distribute Critical files to Preparer	W, I
4.	Payment processing team	Data Entry in the system	Long lead time for Preparer lever	W, I, T
5.	Payment processing team	Verify Voucher	High waiting time at Verifier level	W, I, T
6.	Payment processing team	Approve Voucher	Long lead time to approver level	W, I, T

Notes:

W	Waiting time
I	Inventory
E	Extra processing
T	Transportation

12.0 APPENDIX B

Kaizen Burst Root Cause Analysis

(a) **KAIZEN BURST 1 – ROOT CAUSE ANALYSIS: LONG LEAD TIME TO PRINT APPROVAL LETTER IN PROCESSING TEAM**

NO	ROOT CAUSE	COUNTERMEASURES
1.	Low handover frequency	• Receive list of approved Critical files/cases only
2.	High volume per batch & bottleneck - result in high waiting time	• Print approval letter for postage only (physical file is directly submitted to Payment processing team without physical approval letter)
3.	Highly dependent on one staff	
4.	No differentiation in the type of cases because the staff only focus on finishing the task without prioritizing cases	

(b) **KAIZEN BURST 2 – ROOT CAUSE ANALYSIS: DELAY IN PERFORMING FILE MOVEMENT ENTRY IN THE SYSTEM TO PAYMENT PROCESSING TEAM**

NO	ROOT CAUSE	COUNTERMEASURES
1.	Low handover frequency	The preparer will send the physical Critical files to the payment processing team as soon as possible.
2.	High volume per batch	The senior preparer will prioritize the Critical files and promptly initiate the file movement in the system to the payment processing team.
3.	No differentiation in type of cases	The Critical files are tagged with red paper.

(c) **KAIZEN BURST 3 – ROOT CAUSE ANALYSIS: LONG TIME TAKEN TO DISTRIBUTE Critical files TO PREPARERS**

NO	ROOT CAUSE	COUNTERMEASURES
1.	No differentiation to facilitate identification	Implementation of "Red Tag" for Critical files (visual management)
2.	Low handover frequency	Implementation of Last In First Out (LIFO) with top priority level
3.	High volume per batch	Movement of Critical files on a "per file" basis
4.	Lack of monitoring on status of MDP case	● End-of-day queue checking as per the system ● Weekly monitoring of performance for all sub-SLAs

(d) KAIZEN BURST 4 – ROOT CAUSE ANALYSIS: LONG LEAD TIME FOR PREPARER LEVEL

NO.	ROOT CAUSE	COUNTERMEASURES
1.	No differentiation to facilitate identification	Implementation of "Red Tag" for Critical files (visual management)
2.	Low handover frequency	Implementation of Last In First Out (LIFO) with top priority level
3.	High volume per batch	Movement of Critical files on a "per file" basis
4.	Lack of monitoring on status of MDP case	● End-of-day queue checking as per the system ● Weekly monitoring of performance for all sub-SLAs

(e) KAIZEN BURST 5 – ROOT CAUSE ANALYSIS: LONG LEAD TIME FOR VERIFIER LEVEL

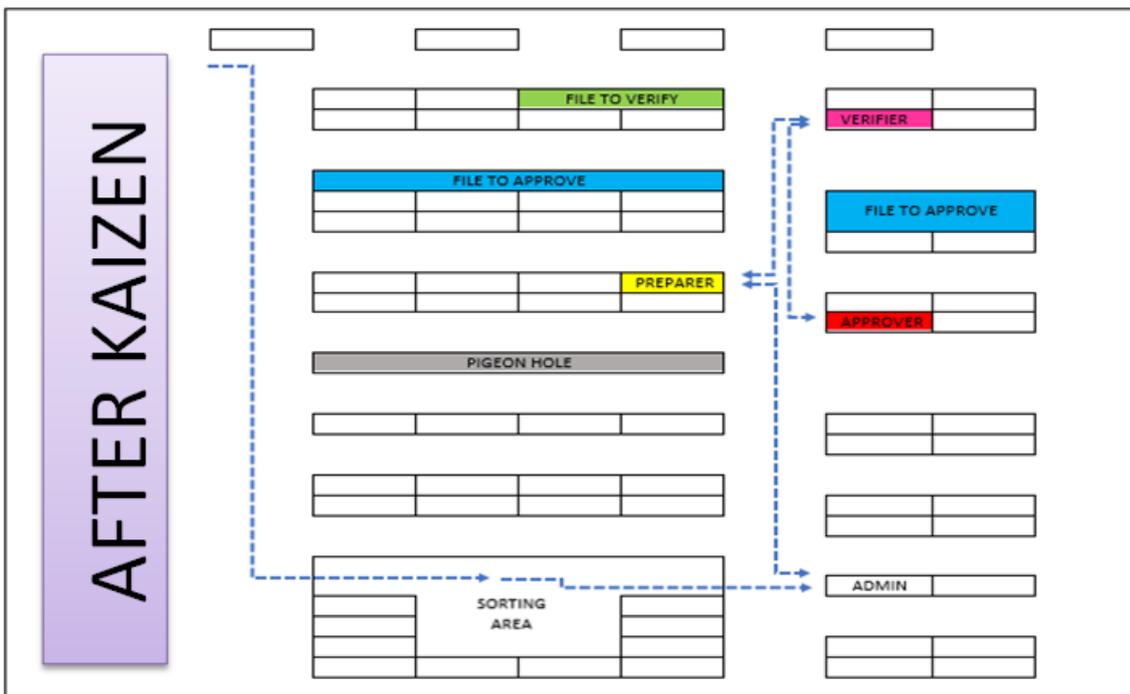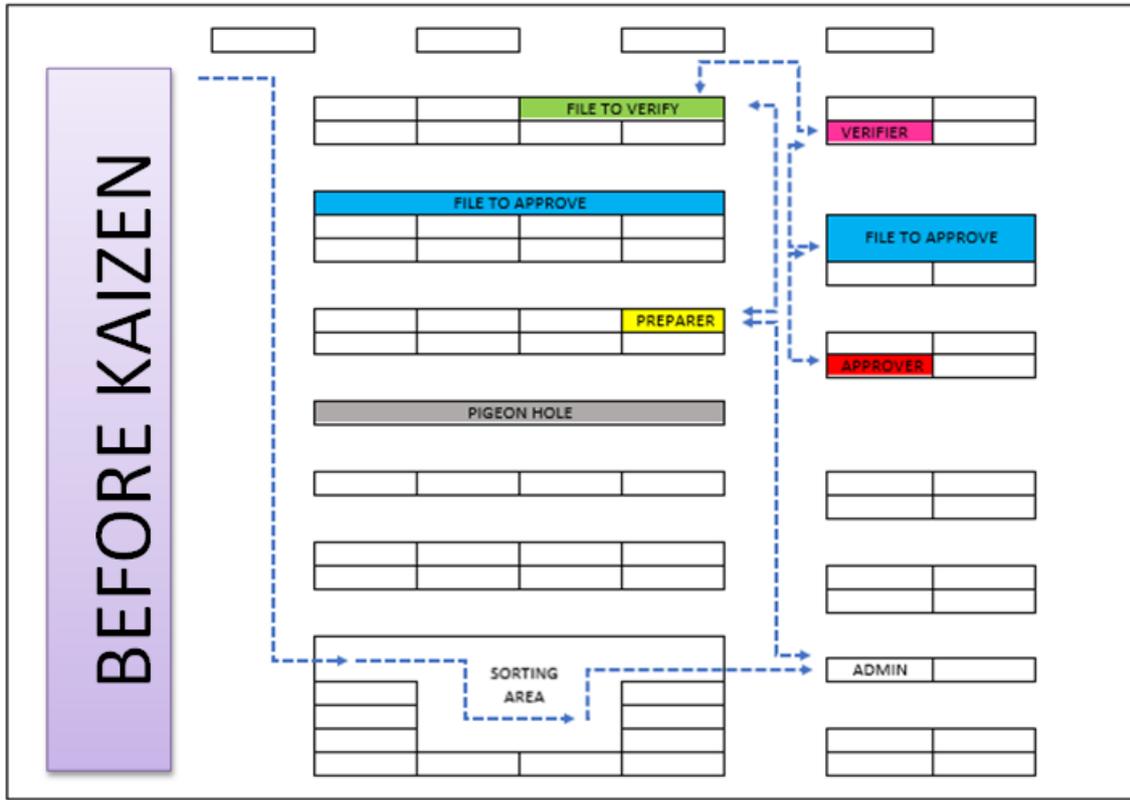| NO.	ROOT CAUSE	COUNTERMEASURES
1.	No differentiation to facilitate identification	Implementation of "Red Tag" for Critical files (visual management)

2.	Low handover frequency	Implementation of Last In First Out (LIFO) with top priority level
3.	High volume per batch	Movement of Critical files on a "per file" basis
4.	Lack of monitoring on status of MDP case	● End-of-day queue checking as per the system ● Weekly monitoring of performance for all sub-SLAs

(f) KAIZEN BURST 6 – ROOT CAUSE ANALYSIS: LONG LEAD FOR APPROVAL OF MDP CASE

NO.	ROOT CAUSE	COUNTERMEASURES
1.	No differentiation to facilitate identification	Implementation of "Red Tag" for Critical files (visual management)
2.	Low handover frequency	Implementation of Last In First Out (LIFO) with top priority level
3.	High volume per batch	Movement of Critical files on a "per file" basis
4.	Lack of monitoring on status of MDP case	● End-of-day queue checking as per the system ● Weekly monitoring of performance for all sub-SLAs

13.0 APPENDIX C

Spaghetti Diagram – Kaizen Burst 4, 5 And 6

14.0 APPENDIX D

Proposed kaizen solution

No	Process	Problem	Causes	Proposed Kaizen Solution
1	PRINT APPROVAL LETTER	Long lead time to print approval letter in processing team	1. Low handover frequency 2. High volume per batch 3. Delay in submission to payment processing team 4. Inefficient working method 5. Lack of knowledge in utilizing technology	1. Step reduction (from 6 to 4) 2. Received list of approved Critical files/cases 3. Print approval letter for postage purposes 4. Submit the physical file directly to the payment processing team without an approval letter 5. Stack and staple the letter 6. Submit the printed letter to staff handling postage
2	PERFORM FILE MOVEMENT ENTRY IN THE SYSTEM TO PAYMENT PROCESSING TEAM	Delay in performing file movement entry in the system to payment processing team	1. Low handover frequency 2. High volume per batch	1. Senior clerk will prioritize red-tagged Critical files first and will perform file movement in the system to the payment processing team as soon as possible.

			3. No differentiation in type of cases	2. Clerk will send physical Critical files with red tags as soon as possible to the payment processing team.
3	DISTRIBUTE FILE TO PREPARER	Long time taken to distribute Critical files to Preparers	1. Low handover frequency 2. High volume per batch 3. Critical files are homogeneous 4. Lack of monitoring 5. No differentiation in type of cases 6. Transport Critical files	1. Critical files will be tagged in red color. 2. Red-tagged Critical files will be given priority for immediate processing. 3. Distribution of red-tagged Critical files will be done on the same day they are received from the processing team.
4	DATA ENTRY IN THE SYSTEM	Long lead time for preparer level	1. High volume per batch 2. Last in, first out for file retrieval	1. Red-tagged Critical files will be prioritized and distributed to the preparer.

			3. Low handover frequency at the preparer level	2. The preparer will process red-tagged Critical files first.
			4. Bottleneck at certain processes	3. Payment processing team's Admin Unit will walk through the preparer's table every hour to collect red-tagged Critical files and distribute them to the verifier.
			5. Lack of monitoring	
			6. No differentiation in type of cases	
			7. Issues with SLA calculation	
5	VERIFY VOUCHER	Long lead time for verifier level	1. Low handover frequency	1. Critical files will be tagged with red color for identification.
			2. High volume per batch	2. Red-tagged Critical files will be prioritized for processing.
			3. Bottleneck at certain processes	3. Payment processing team's administrator will monitor the movement of Critical files, giving each process one hour to complete.
			4. Critical files are homogeneous	
			5. Lack of monitoring	4. End-of-day monitoring to ensure Critical files are

			6. No differentiation in type of cases	verified and approved on the same day.
6	APPROVE VOUCHER	Long lead time for approver level	1. Low handover frequency 2. High volume per batch 3. Lack of monitoring 4. No differentiation in type of cases for easy identification	1. Critical files will be red-tagged for easy identification. 2. Batch size will be reduced—Critical files will be distributed to the Approver as soon as the Reviewer completes their review. 3. Supervisor will perform end-of-day queue checking via the system to identify outstanding Critical files.