

OPTIMIZATION OF THE RECORD MANAGEMENT SYSTEM USING THE 5S METHOD TO IMPROVE PERFORMANCE EFFECTIVENESS AND EFFICIENCY AT PT BGR LOGISTIK INDONESIA DKI JAKARTA BRANCH

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Abstract

Inefficiencies in the record management system can delay document retrieval and reduce overall productivity. This study analyzes and aims to optimize the record management system at PT BGR Logistik Indonesia, DKI Jakarta Branch, through the implementation of the 5S method: Seiri (Sort), Seiton (Set in Order), Seiso (Shine), Seiketsu (Standardize), and Shitsuke (Sustain). The findings reveal that the current manual system hinders effective document handling, compounded by limited human resources and lack of training. Implementing 5S is expected to enhance organization, minimize waste, and improve efficiency. The study recommends digitalization, staff training, environmental improvements, provision of handling tools, and regular evaluations.

Keywords

Record management system; 5S Method; effectiveness; efficiency; performance

INTRODUCTION

Warehousing refers to the activity of storing goods, while the physical space used is known as a warehouse. This process includes several stages receiving, storing, recording, arranging, maintaining, and distributing goods along with reporting as part of managerial accountability. Warehousing is not limited to storing physical items; it also involves planning, organizing, and controlling inventory (Adawiyah, 2022). With growing demands for storage, warehouses now serve broader functions, including the safekeeping of documents and critical operational information. In today's digital era, archives play a vital role in supporting organizational management by ensuring access to essential information (Husnita & Kesuma, 2020).

This has been regulated in Undang-Undang No. 43 of 2009 on Archiving. In its management, every business entity is required to ensure the existence of archives that possess high authenticity and credibility as a foundation in decision-making as well as the fulfillment of legal and administrative aspects.

Therefore, the role of the archive warehouse cannot be underestimated as merely a physical storage space, but rather as a center for archive management that functions to organize, maintain, and preserve the integrity and traceability of archive information systematically. Thus, the availability of a structured and professionally managed archive warehouse becomes an essential and inseparable element in supporting the operational efficiency and accountability of the institution (Akmal & Rahmah, 2020).

According to Sedarmayanti (2003, in Hayati, 2020), the obstacles faced by each company in poor archive management are the lack of understanding regarding the importance of archives, which results in the function of archives as the organizational memory center not being able to operate optimally, ultimately leading to the undervaluation of tasks in each archiving department. The inadequacy of employee qualifications is not met, as it is known that placements are often not based on the necessary competencies. The continuous increase in the volume of archives, which results in the available space and equipment not being matched by additional space, has led to the archives being unable to be accommodated anymore. The guidelines or SOPs related to archival work implemented in the office or organization are not yet optimal. Additionally, the ineffective process of searching for archives makes it difficult to find them quickly and accurately when needed. This is due to an imperfect system or the lack of skill among the staff in carrying out their duties. The disruption of all activities in the archive warehouse is a form due to the numerous problems faced in the archive warehouse. These various issues can affect the quality of service. produced by the performance of the company's employees becomes not optimal. Thus, companies operating in the field warehousing is important to ensure the overall process the storage and retrieval of documents effectively and efficiently to resolve the issues causing suboptimal performance archive warehouse that affects customer satisfaction (Hayati, 2020).

PT BGR Logistik Indonesia is one of the companies active in the warehousing service sector, and counting more than 500 warehouse units across Indonesia can be managed, including archive

warehouse. The variety of warehouse services offered by the company also leads to a diverse range of partners who consistently rely on its services. Almost all of the services the warehouse services provided by PT BGR Logistik Indonesia have integrated by the warehouse management system (WMS), the availability various material handling as a form of goods handling, and sufficient human resources with the established operational standards. However, based on company informant sources, from the total the entire warehouse that can be operated by PT BGR Logistik Indonesia branch DKI Jakarta, there are still warehouse services available which is provided by the company is considered not optimal in its management is located in the archive warehouse. In PT BGR Logistik Indonesia, archive warehouse is referred as record management center.

The lack of optimization the management of the archive warehouse of PT BGR Logistik Indonesia is influenced by the lack of quality management in the archive warehouse work system. Observation results indicate that the company manages various types of warehouses based on their contents, ranging from raw material warehouses to finished goods warehouses, and even archive warehouses. This makes each process in the archive warehouse time consuming due to several factors, including: warehouse management not being integrated into the warehouse management system, an unorganized work environment, lack of standardization and discipline culture, errors in searching and placing archives, and the current use of semi manual technology in the PT BGR Logistik Indonesia archive warehouse. The technology utilized by the company for archive warehouse activities is limited to Microsoft Office services for data input related to documents to be stored in the warehouse. Moreover, there is currently no material handling available for receiving, put away, and picking for document box retrieval.

Furthermore, the limited number of available human resources also poses another obstacle that contributes to the decline in the number of customers. When the archive documents are to be delivered by PT BGR Logistik Indonesia to customers, the documents cannot arrive within the time promised in the service level agreement. Additionally, changes in the delivery of goods via the lift, delivery time restrictions, accidents, and difficult road access exacerbate the delays in delivery. The following is a table comparing the expected working time and the actual realization of activities related to document boxes in the archive warehouse:

Table 1.1 Comparison of Target Time and Realization of Activities

Activity	Target	Actual	Difference
Retrieval of new documents from customers	180 minutes/box	195 minutes/box	15 minutes
Transportation of documents from customers	15 minutes/box	25 minutes/box	10 minutes
Unloading documents from box truck to RMC warehouse	15 minutes/trolley	20 minutes/trolley	5 minutes
Reboxing documents	60 minutes/box	75 minutes/box	15 minutes

Document listing	5 minutes/box	30 minutes/box	25 minutes
Placement of document boxes on racks	120 minutes/box	130 minutes/box	10 minutes
Entry of rack listing data into the computer	5 minutes/listing	15 minutes/listing	10 minutes
Retrieval of customer document boxes from racks	60 minutes/box	75 minutes/box	15 minutes
Loading documents for customer delivery	60 minutes/box	75 minutes/box	15 minutes
Unloading documents at the customer site	60 minutes/box	70 minutes/box	10 minutes

Source: Secondary Data Processed by the Author, 2024

Based on the results of the interview with PT BGR Logistik Indonesia faces various issues that occur in the archive warehouse, of course. causing archives to often be difficult to find or even impossible found, the factors of the problem are known to cause the company is experiencing performance degradation that affects work efficiency, which in turn impacts the decline the company's performance due to the declining productivity of work processes, and threaten the safety of workers. This condition certainly has the potential lowering customer satisfaction levels, and if not immediately handled can lead to negative consequences for the reputation company, and hinder the operational stability of the company in a sustainable (PT BGR Logistik Indonesia, 2024). Satisfaction customers of the archive warehouse service are closely related to the decline in the number of customers at the company. It is known that the company experiences fluctuations in the number of customers a quite significant archive warehouse.

Here is the amount of data customer of the archive warehouse PT BGR Logistik Indonesia DKI Branch Jakarta.

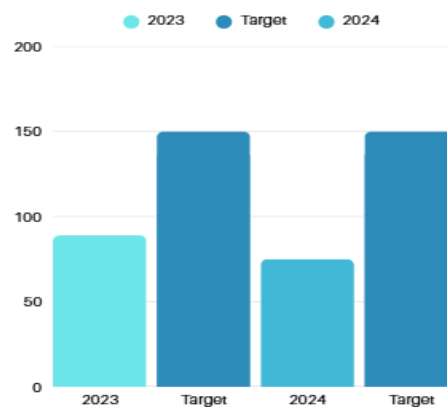


Figure 1.1 Customer Data PT BGR Logistik Indonesia Year 2023 – 2024

Source: Secondary Data Processed by the Author, 2025

Based on the results of the interview with PT BGR Logistik Indonesia, this decrease is due to the suboptimal management of the archive warehouse that caused some customers to stop renting the warehouse and start choosing warehouse rental services others because they consider the rental service to belong to PT BGR Logistik Indonesia is still not at its best. The absence of target number setting customers by PT BGR Logistik Indonesia also became the cause the company increasingly faces significant challenges in the aspect business management.

This will certainly impact the difficulty of the company in determining measurable performance benchmarks and conduct a comprehensive evaluation of the effectiveness of the strategy that is applied, including the extent to which the strategy will achieving the expected goals. In the operational section, the uncertainty in estimating the number of customers that need to be served as well potentially causing an imbalance in supply capacity services that can ultimately lead to a decline service quality and resulting in customer dissatisfaction. Therefore, to address the issues with the archive warehouse which is not yet optimal, the company needs to make efforts systematic improvements, with a primary focus on management reliability archive through the reliability of human resources. As part of planner, executor, and controller, human resources also actively participating to achieve the company's goals (Kusuma et al., 2022).

One of the steps that can be taken by every company to be able to compete successfully in the market is by optimizing archive warehouse management, because warehouse management effective archiving becomes the key to success in supporting operational excellence of the company. Therefore, the researcher chose to use the 5S method, especially since it is considered capable of ensuring the effectiveness and efficiency of performance in the workplace. The 5S method focuses on the systematic organization of the workspace. through five main steps, namely seiri (sort), seiton (set in order), seiso (clean), seiketsu (maintain), and shitsuke (discipline). The implementation of 5S in archive storage is believed to minimize time wastage and energy, especially in developing a more efficient storage system systematic, to improve the speed of document retrieval, reducing administrative errors that often occur during manual record keeping, as well as creating a work culture that more orderly and disciplined. Considering the condition of the archive warehouse that has not yet organized optimally, the implementation of 5S as the right solution to drive continuous improvement and enhance the quality of service to customers.

LITERATURE REVIEW

Quality Management

An organizational approach focused on improving all aspects of production and services to enhance customer satisfaction and gain competitive advantage (Heizer et al., 2020). According to Anugrah (2023), quality management is a method commonly used by companies to ensure customer needs and expectations are met in line with current trends. Its main goal is to optimize

the existing quality system and support customer satisfaction across various aspects of products or services.

Warehouse Management

According to Primadi et al. (2024), warehouse management focuses on the storage and distribution of goods, including the regulation and monitoring of incoming and outgoing items within the warehouse area. According to Aqilah et al. (2023), warehouse management is a series of activities involving the planning, organizing, controlling, and monitoring of processes related to the procurement, storage, and utilization of goods or materials within a company.

Archive Warehouse/Record Center

Fitry (2024) defines an archive storage area as a dedicated space for storing, managing, and preserving important organizational documents such as letters, contracts, financial reports, and transaction records. Proper archive management ensures security, accessibility, and data integrity.

Optimization

Ali (2014), as cited in Rattu et al., (2022) explains optimization as a process aimed at achieving desired outcomes effectively and efficiently through well-planned activities that meet organizational needs.

Effectiveness and Efficiency

Farida et al., (2022) state that effectiveness relates to achieving targets by considering the quality, quantity, and timeliness, while efficiency, according to Susilo (2011) as cited in Syam (2020), refers to completing tasks optimally using available resources.

METHODS

Research Approach

The research employs a qualitative descriptive approach to explore the optimization of archive warehouse management using the 5S method in order to improve work effectiveness and efficiency at PT BGR Logistik Indonesia, DKI Jakarta Branch, based on data collected through observation, interviews, and documentation.

Research Focus and Location

The researcher has a primary focus on finding solutions related to the issues of suboptimal warehouse management in the archive warehouse. Location at PT BGR Logistik Indonesia DKI Jakarta Branch.

Research Phenomenon

This research focuses on three key issues: the reliance on a semi manual archive management system, the potential of the 5S method to improve efficiency and organization, and the supporting or inhibiting factors in its implementation, such as employee discipline and lack of SOPs. The aim is to enhance archive operations through structured improvements.

Data Source

This research uses both primary and secondary data sources. Primary data were obtained directly through interviews, observations, and field documentation, while secondary data came from company reports, SOPs, organizational structures, and relevant literature. These data support the explanatory approach used to analyze and address the problems in archive warehouse management at PT BGR Logistik Indonesia.

Research Informants

This study uses purposive sampling to select informants based on specific criteria, focusing on the depth and relevance of the information rather than the number of participants. Informants were selected based on their active role in archive warehouse operations at PT BGR Logistik Indonesia, a minimum of three years of experience, and a strong understanding of archival procedures and related challenges.

Data Collection Technique

Data collection in this study was conducted through in depth interviews, direct observation, and documentation. Semi structured interviews were held with three key informants involved in archive warehouse operations to explore workflows, challenges, and document handling procedures. Observations and field documentation such as photos of archive layout, infrastructure, and employee activities were used to validate findings and capture actual conditions related to 5S implementation at PT BGR Logistik Indonesia.

RESULT AND DISCUSSION

Current Condition of Archive Warehouse Management

The archive warehouse management system at PT BGR Logistik Indonesia, DKI Jakarta Branch, is referred to as Record Management System still operating suboptimally. Field observations and interviews revealed several critical issues affecting operational efficiency. These include reliance on semi-manual systems such as Microsoft Excel for data input without integration into a warehouse management system (WMS), unorganized document storage layouts, and the absence of material handling tools to support efficient document movement. The storage environment is also less than ideal, with problems such as poor ventilation, limited lighting, and high humidity levels due to the location's proximity to a water body. Another significant issue is the lack of standard operating procedures (SOPs) tailored for archive warehouse operations. Staff members perform their duties based on habits or informal instructions, leading to inconsistencies in document handling. In addition, there are no performance indicators in place to monitor or evaluate warehouse productivity. This absence of metrics prevents the organization from identifying bottlenecks or areas needing improvement.

Human resource limitations also present a major obstacle. The number of staff dedicated to archive management is insufficient, and those assigned often have no specific background or training in records management. This results in frequent errors, slow processing times, and inefficiencies that negatively impact service delivery. The culmination of these issues leads to

delays in document retrieval and delivery, ultimately decreasing customer satisfaction and violating service level agreements (SLAs).

Based on the results of observations, interviews, and document reviews, the root causes of the inefficiency in archive warehouse management at PT BGR Logistik Indonesia, DKI Jakarta Branch, can be categorized into six main factors using the Fishbone (Ishikawa) Diagram approach:

1. Man (Human Resource)
 - a. Lack of personnel assigned specifically to archive management.
 - b. Employees have not received adequate training in document handling or archiving systems.
 - c. Absence of specialization leads to inconsistent practices and frequent handling errors.
2. Method (Work Procedure)
 - a. No standardized operating procedures (SOPs) for archive warehouse operations.
 - b. Document arrangement and retrieval rely heavily on informal routines or memory.
 - c. The 5S method is not yet fully implemented in daily activities.
3. Machine (Technology/Tools)
 - a. Archiving activities are still performed using semi-manual methods (e.g., Microsoft Excel), with no integration to a Warehouse Management System (WMS).
 - b. Lack of barcode systems or automated labeling tools.
 - c. No material handling equipment, such as trolleys or lifts, to ease document movement.
4. Environment
 - a. The warehouse environment is poorly maintained, with high humidity, low lighting, and cramped conditions.
 - b. Proximity to open drainage channels contributes to dampness, which threatens document preservation.
 - c. Layout is disorganized, making it difficult to navigate or optimize storage space.
5. Measurement (Performance Indicators)
 - a. No clear Key Performance Indicators (KPIs) for document retrieval time, storage accuracy, or service level compliance.
 - b. No tracking or benchmarking tools in place to evaluate archive warehouse performance.
 - c. Lack of feedback loop between operational issues and managerial decisions.
6. Materials (Document Condition)
 - a. Many archived documents are stored in poor condition (e.g., damaged boxes, unlabeled files).
 - b. Inconsistent document classification leads to frequent misplacement.
 - c. No structured system for document preservation, rotation, or destruction.

Optimization of Record Management System Using the 5S Principles to Improve Work Effectiveness and Efficiency

The archive warehouse plays a critical role in supporting organizational continuity by ensuring that essential records are systematically stored, maintained, and easily retrieved when needed. To achieve this, the optimization of record management system must be carried out comprehensively, covering three key aspects: archive management, archive preservation, and archive supervision.

1. Archive Management

Archive management involves the systematic process of receiving, storing, classifying, and retrieving documents in a way that ensures efficiency, accuracy, and traceability. Effective management allows institutions to maintain administrative order, improve response time, and minimize the risk of document misplacement or loss. Poor archive organization often leads to delays in document retrieval and reduces the overall effectiveness of services provided to clients.

2. Archive Preservation

Preserving archives refers to efforts taken to maintain the physical and informational integrity of documents over time. This includes controlling environmental conditions such as humidity and lighting, using appropriate containers, and ensuring that archives are not exposed to pests or mechanical damage. Without proper preservation measures, documents may deteriorate, become unreadable, or lose their legal and historical value.

3. Archive Supervision

Supervision ensures that archival activities are carried out according to established procedures and standards. This includes routine inspections, performance evaluations, and the application of Standard Operating Procedures (SOPs). Regular monitoring helps identify operational inefficiencies and allows management to take corrective action promptly. In many cases, ineffective supervision has contributed to the persistence of manual systems and undisciplined work habits.

To address these issues and improve the overall performance of archive warehouse operations at PT BGR Logistik Indonesia, DKI Jakarta Branch, this study applies the 5S method as a structured and practical approach to optimization. The 5S method, originating from Japanese industrial practices, consists of five key principles aimed at organizing the workplace to improve efficiency and quality:

a. Seiri (Sort)

This step focuses on sorting documents to separate what is essential from what is no longer needed. Unnecessary or outdated records are discarded or archived according to

retention policies. This reduces storage burden and creates more space for active documents. It also minimizes confusion and speeds up access.

b. Seiton (Set in Order)

All archival materials are arranged systematically based on location codes, zones, and document categories. Labels and storage maps are used to ensure that documents can be located quickly and accurately. This reduces the time spent on retrieval and minimizes errors in document handling.

c. Seiso (Shine)

Routine cleaning and inspection are carried out to ensure the archive environment remains clean, organized, and safe. This includes checking for dust, moisture, pests, and box damage. A clean space reflects a disciplined culture and supports document preservation.

d. Seiketsu (Standardize)

Standards are established and documented, covering how documents should be labeled, stored, maintained, and handled. Maintenance schedules, SOPs, and inspection checklists are applied consistently. This creates uniformity across all operational activities and reduces variability.

e. Shitsuke (Sustain)

The final step focuses on instilling discipline and maintaining the 5S culture over time. Daily routines, staff briefings, and regular evaluations are conducted to reinforce compliance. The goal is to ensure that improvements are sustainable and integrated into the organization's work ethic.

Supporting and Inhibiting Factors in the Optimization of Archive Warehouse Management

The effectiveness of optimizing the record management system using the 5S method is strongly influenced by both supporting and inhibiting factors. These factors determine how successfully the principles of Seiri, Seiton, Seiso, Seiketsu, and Shitsuke can be applied in daily operations.

a. Supporting Factors

1. Adequate Infrastructure

The availability of basic infrastructure such as document racks, storage shelves, and appropriate storage zones supports the physical arrangement of archives. This infrastructure helps streamline the sorting and placement of documents, in line with the 5S principles.

2. Routine Supervision and Evaluation

Regular supervision and periodic evaluations ensure that archive management activities are carried out according to procedures. This helps maintain discipline and continuous improvement, aligning with the Shitsuke (sustain) principle.

3. Clear and Applicable SOPs

The existence of clear Standard Operating Procedures (SOPs) that are easy to follow by all employees allows for standardized operations. This supports the Seiketsu (standardize) aspect by ensuring consistency in document handling and storage processes.

b. Inhibiting Factors

1. Absence of a Digital System

The record management system still relies on semi-manual processes, such as Microsoft Excel for data entry. The lack of a digital archive system reduces efficiency and increases the risk of errors.

2. Inadequate Storage Conditions

Unfavorable physical conditions such as limited space, poor air circulation, or humidity can threaten the integrity of archived documents and reduce employee comfort, impacting performance.

3. Lack of Material Handling Tools

The unavailability of essential material handling equipment such as trolleys or lifts makes it difficult for employees to move documents efficiently. This slows down operations and may pose safety risks.

CONCLUSION

This research concludes that the record management system at PT BGR Logistik Indonesia, DKI Jakarta Branch, still faces significant challenges in several areas including human resources, management, work methods, environment, performance measurement, and infrastructure. Key issues such as limited workforce, lack of archival training, non digital systems, poor storage conditions, and absence of performance indicators have led to inefficiencies. The partial implementation of the 5S method further highlights the need for systemic improvements through digital integration, SOP development, and the promotion of a disciplined and standardized work culture. The 5S method Seiri, Seiton, Seiso, Seiketsu, and Shitsuke offers a structured approach to improve work efficiency and accuracy in document handling. When applied effectively, it promotes a clean, organized, and standardized archive environment that supports service quality improvement. Supporting factors include proper infrastructure, routine supervision, and clear SOPs, while constraints include the absence of digital systems, unsuitable storage conditions, and lack of material handling tools.

REFERENCES (CALIBRI 12, BOLD, UPPERCASE)

We recommend using software such as Mendeley for the references. AJLM adopts APA style. List of references should be typed in Calibri 12 Normal; Sentence Case; paragraph: line spacing 1 lines; before: 0 pt, after: 6 pt. Here are some examples.

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