OPTIMIZE FILING MANAGEMENT IN OFFICE THROUGH 5S IMPLEMENTATION AT TEXTILE MANUFACTURING COMPANY

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Optimize Filling Management in Office Through 5S Implementation at Textile Manufacturing Company

This report is submitted by requirement of the University Teknikal Malaysia Melaka (UTeM) for Bachelor Degree of Industrial Engineering (Hons.)

by

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DECLARATION

I hereby, declared this report entitled “Optimize Filing Management in Office Through 5S Implementation at Textile Manufacturing Company ” is the result of my research except as cited in references.

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APPROVAL

This report is submitted to the Faculty of Industrial and Manufacturing Technology and Engineering of Universiti Teknikal Malaysia Melaka as a partial fulfilment of the requirement for Bachelor of Industrial Engineering (Hons.) The member of the supervisory committee are as follow:

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ABSTRAK

Tajuk kajian ini adalah 'Mengoptimumkan Pengurusan Fail di Pejabat melalui Pelaksanaan 5S di Syarikat Pembuatan Tekstil'. Kajian ini menyelidik pelaksanaan metodologi 5S di pejabat kewangan Prym Consumer Malaysia Sdn. Bhd di Tanjung Kling, Melaka untuk meningkatkan pengurusan fail dan kecekapan tempat kerja secara keseluruhan. Berasal dari Lean Manufacturing dan Toyota Production System, metodologi 5S – Sisih, Susun, Sapu, Seragam dan Sentiasa Amal adalah strategi penting untuk mengekalkan persekitaran kerja yang teratur dan cekap. Pejabat kewangan menghadapi permasalahan seperti penyimpanan yang tidak teratur, tag fail yang tidak jelas, dan pengindeksan yang tidak mencukupi, yang mengakibatkan pembaziran masa dan penurunan produktiviti. Objektif kajian ini adalah untuk meneliti amalan 5S semasa, melaksanakan kaedah 5S yang diselaraskan, dan mengesahkan keberkesanannya dalam memperbaiki pengambilan fail dan akses maklumat. Alat 5S telah diterapkan secara sistematik ke dalam sistem pengurusan fail melalui lawatan industri, pemerhatian, dan ulasan literatur, menghasilkan peningkatan ketara dalam kecekapan ruang kerja, kebersihan dan masa pencarian fail dalam pengurusan fail. Pendekatan yang diselaraskan memastikan konsistensi dalam menerapkan prinsip-prinsip 5S, yang sangat penting untuk mengekalkan penambahbaikan dari masa ke masa. Dengan mengurangkan masa pencarian fail sebanyak 81.86%, manfaat praktikal 5S dalam suasana pejabat jelas terbukti. Pengurangan yang ketara ini bukan sahaja meningkatkan kecekapan tetapi juga mengurangkan rasa kecewa dan kelewatan yang berkaitan dengan pencarian dokumen penting. Penambahbaikan yang disyorkan untuk mengurangkan pembaziran pengurusan fail selanjutnya adalah menerapkan metodologi 7S dan menggunakan sistem buku log untuk menjejaki penggunaan fail.

ABSTRACT

The title of the research is ‘Optimize Filing Management in Office through 5S Implementation at Textile Manufacturing Company’. This study investigates the implementation of the 5S methodology in the finance office of Prym Consumer Malaysia Sdn. Bhd at Tanjung Kling, Melaka to enhance file management and overall workplace efficiency. Originating from Lean Manufacturing and the Toyota Production System, the 5S methodology – Sort, Set in Order, Shine, Standardize and Sustain is a crucial strategy for maintaining organized and efficient work environments. The finance office faced challenges such as disorganized storage, unclear file tags, and insufficient indexing, leading to wasted time and reduced productivity. The study's objectives were to examine current 5S practices, implement a standardized 5S method, and validate its effectiveness in improving file retrieval and information access. The 5S tools were systematically applied to the filing system through industrial visits, observations, and literature reviews, resulting in significant improvements in workspace efficiency, cleanliness and file search time in file management The standardized approach ensured consistency in applying the 5S principles, which was crucial for maintaining the improvements over time. By reducing the file search time by 81.86%, the practical benefits of 5S in office settings were clearly demonstrated. This significant reduction enhanced efficiency and minimized the frustration and delays associated with locating important documents. The recommended improvements to further reduce filing management waste are applying the 7S methodology and using the logbook system to track file use.

DEDICATION

Only

my beloved father,

my appreciated mother,

my supervisor,

my friends that involve in this study,

for giving me moral support, money, cooperation, encouragement, and also understanding

Thank you so much

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In the name of ALLAH, the most gracious and merciful, I praise Allah for allowing me to complete this final-year project successfully and without difficulty.

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LIST OF ABBREVIATIONS

LM	-	Lean Manufacturing
LO	-	Lean Office
TPS	-	Toyota Production System
TPM	-	Total Productive Maintenance
JIT	-	Just-In-Time
PDCA	-	Plan, Do, Check, Act
SOP	-	Standard Operation Procedure
POS	-	Perceived Organization Support
PSS	-	Perceived Supervisor Support

CHAPTER 1
INTRODUCTION

As an introduction, this chapter consists of a few parts that elaborate the general explanation of the project. The background of the study will elaborate as key information to resolve the present problems faced by the industry. It also provides the problem statement which will be studied throughout the project. Next, the objectives have been set to be achieved by the end of the study and the scope of the study is emphasised in the finance office department. Moreover, it is important to remember the organization of the report.

1.1 Background study

Nowadays, companies must understand lean manufacturing and processes to increase their bottom line (Zarirah et.al 2023). In today's highly competitive markets, companies have started applying a Lean Manufacturing (LM) concept as their strategy to sustain in the competition. According to a survey (Industry Week, 2022), over 70% of companies have applied lean manufacturing to improve efficiency and reduce waste. In the last few decades, implementing LM has helped companies become more competitive and perform better. Several previous studies have found that companies use the LM strategy in their manufacturing processes to increase efficiency and productivity. Other than that, lean principles also can apply to the office environment. In the 21st-century workplace, optimizing office processes and eliminating waste are important to enhance efficiency and productivity.

LM is mostly introduced by Japanese production from the Toyota Production System (TPS) (Deshmush, 2022). LM involves several different types of lean tools such as Kanban, Kaizen, 5S, Poka-Yoke, and Just-In-Time and Overall Equipment Effectiveness (OEE). 5S is one of the most effective LM tools that helps to clean, order, standardize, and organize the work area. This results in improved work safety and quality, effective workplace organization,

and the removal of losses associated with equipment failures and breakdowns. The implementation of 5S is important since it provides a basis for creating an effective housekeeping culture inside the company (Rahman, 2016).

In general, 5S is a method that involves employees' commitment for successful implementation, and it requires ongoing commitment from everyone in the workplace. A disorganized workplace makes it difficult to identify problems. Organizing and cleaning the workspace helps problem-solving within the team. Identifying problems is the first step in making improvements (Sidhu, 2013).

This study is a collaboration between the university and industry as it is being held at a manufacturer's company in Melaka. The main department of the company for this project is the finance office area. The key point of this study is to implement the 5S method in filing management that can improve efficiency and the work environment of the employee.

1.2 Problem Statement

LM tools and techniques have been used widely and the most popular tool implemented by the company is the 5S tool. In recent years, there are still have many offices in factories or SMEs that not implemented 5S. According to Ahsan (2021), 5S is a workplace organization system designed and used in Japan to help build a quality work environment, physical and mental. Therefore, 5S is important since its implementation aims to provide workers with the responsibility to manage their workplace and create an environment where they enjoy and look forward to working every day.

Prym Consumer Malaysia Sdn. Bhd is located at Tanjung Kling, Melaka, Malaysia. Currently, the company faces numerous issues with filing management. The finance office has not implemented the 5S method for organizing their file storage. Due to this situation, the employees need to waste a lot of time finding the files and documents. There is insufficient space for storage and shelving because the volume of the files and documents becomes excessive. Figure 1.1 below shows, and this is almost certainly the first impression that

everyone passing by the location in filing areas. The filing storage is disorderly and unorganized. Aside from that, the file storage overcrowding with unnecessary files and items.

Figure 1.1: Disorganized file storage

There are some of the file numbering and file tags have handwriting made with markers. This is causing unclear file tags, resulting in significant problems of confusion and missing files. Due to unclear file numbering and file tags, it is difficult for employees to track the location of files that missing which will cause delays in their daily workflows and errors in documentation.

Figure 1.2: Unclear file tags

Additionally, the absence of index numbers and separators in file documents makes it difficult to find information. Without a clear and organized indexing system, locating specific details within the files becomes a time-consuming and challenging.

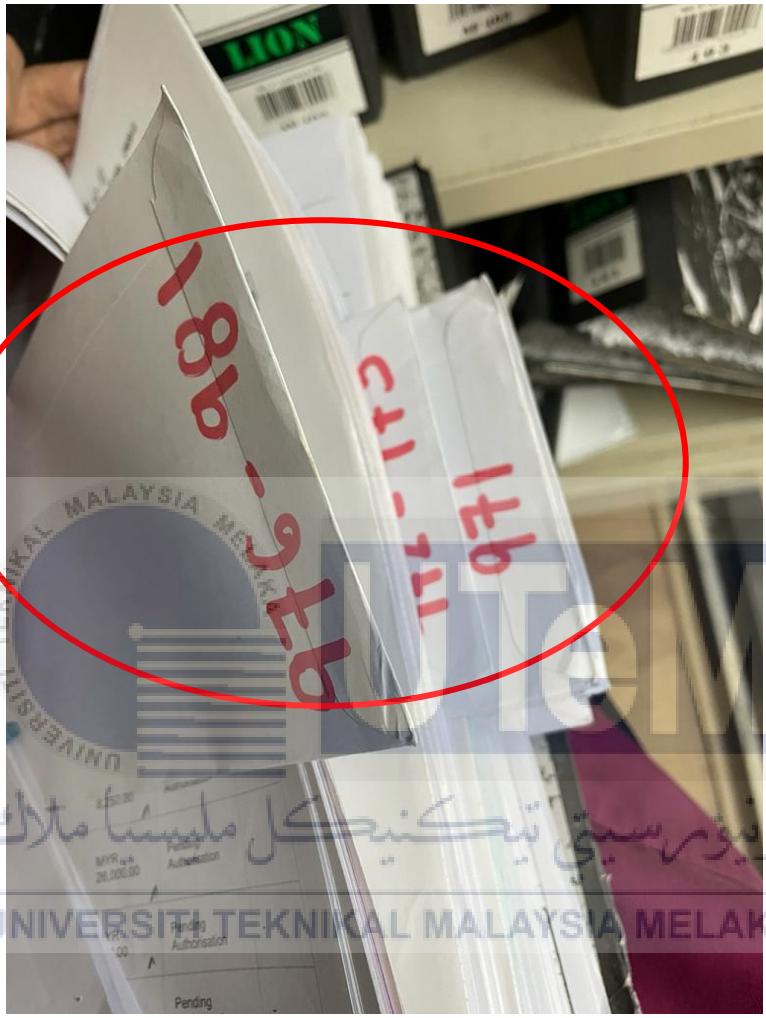


Figure 1.3: Envelope as a separator

Therefore, for the above reason, many employees are forced to spend a significant amount of time searching for files and documents due to the disorderly and unorganized storage. The disorderly filing system negatively impacts overall office efficiency.

1.3 Objectives

This research aims to implement the 5S methodology to maintain file management in the finance office at Prym Consumer Malaysia Sdn. Bhd are clean, organized, and secure manner.

The objectives of the project are :

i. To study the current 5S and its potential to be applied in filing management.
ii. To implement a standardized 5S method in filing management to ensure file handling consistency.
iii. To validate the 5S method for filing management that allows for quick and easy retrieval of files and information.

1.4 Scope of the research

The scope of this research involves 5S implementation on the filing system in the finance office at Prym Consumer Malaysia Sdn. Bhd. located at Tanjung Kling, Melaka, Malaysia. This project will focus on organizing a filing system and designating specific locations for different financial documents to make it easier to find them. This project also ensures that file storage is regularly cleaned and maintained to enhance accessibility and reduce the chances of documents being misplaced.

1.5 Organization of The Report

In the PSM 1, this report will be divided into three chapter which is introduction, literature review, and methodology. The contents of each chapter are:

Chapter 1 – This chapter is to elaborate the introduction of background of study, problem statement, objectives, and scope. The objective of this study is developed from a detailed problem statement.

Chapter 2 – This chapter explain and explore the literature review related to the case study, reviewing the past research that is relevant to the current case study. This chapter will provide a clear understanding of the topics pertinent to the study, summarizing various published works that support the information presented.

Chapter 3—This chapter outlines the study's fundamental methodology and the research method used, including the actions required to meet the study's objectives.

Chapter 4 – This chapter focuses on the results, where the findings and data collection are discussed, particularly highlighting the outcomes of implementing the 5S.

Chapter 5 – This chapter presents the conclusions and recommendations derived from the insights and discussions of the previous chapter

CHAPTER 2
LITERATURE REVIEW

This chapter will review more details in lean, overview of lean manufacturing, lean office, overview of 5S, origin of 5S, concepts of 5S, implementation of 5S, and the benefits and barrier in implementation 5S. The review discussed based on journals, books, articles, websites, and thesis.

2.1 Lean

The word "lean" is frequently used in the context of operations and production management. It refers to a set of principles and practices that aim to optimize efficiency, reduce waste, and enhance overall value in the production process. The Toyota Production System (TPS) introduced the idea of lean manufacturing, which is currently being applied to many different industries (Womack et al., 1990).

The word "lean" frequently implies using lean concepts to enhance the production process in a production setting. This involves reducing non-value-added tasks, lowering inventory, streamlining workflow, and encouraging a continuous improvement culture. Therefore, the aim is to provide products or services more effectively and efficiently by streamlining processes, eliminating waste (such as excess inventory, waiting times, overproduction, needless motion, and overprocessing), and improving overall efficiency (Ohno, 1988).

Applying the concepts of lean can improve production, quality, and customer happiness. Lean thinking has been effectively applied in industries other than manufacturing, including software development, services, and healthcare. Lean concepts are thought to be important for current techniques for process improvement and operations management.

2.1.1 Overview of LM

Lean Manufacturing (LM), often referred to simply as "Lean", is based on the principles of the Toyota Production System (TPS). According to Palange and Dhatrak (2021), LM can be described as the elimination of waste in a production system that may be related to human efforts and time inventories at different production stages. Studies have also stated that in most of the manufacturing and service sectors, LM is a useful tool for eliminating waste and non-value activities. Another research by Ikumapayi et al., (2019) stated that in manufacturing LM is the disposal of waste, which is defined as anything that does not improve the final product in any way. Implementing the concept of LM can help all types of companies, including those in the manufacturing, process, distribution, software development, and financial services industries. If a company can identify a value stream that runs from the time a customer orders products until they receive it (Singh et al., 2014).

The main aim of LM is to maximize customer value while minimizing waste and improving efficiency and quality in the manufacturing area. By implementing LM, the company will improve quality.

2.1.2 Lean Office

The principles of Lean Manufacturing originated in manufacturing and have been applied in various productive areas in recent years, yielding positive outcomes in response to the imperative for companies to streamline their operations. These ideas can be used in non-productive areas, like offices; it's called Lean Office. The aim is to remove things that do not add value, save time and resources, and enhance the quality of client interactions (Sastre, 2018). According to Yokoyama et al., (2019), lean Office also known as LO is the implementation of the lean manufacturing philosophy in offices and administrative processes. LO reduces the overall cycle time while streamlining information flow in all administrative functions and offices. The quality and timeliness of information flow within an office directly affect the product or service since mishandled or delayed information leads to disorganized production line operations or delayed service delivery (Haroldo, 2024).

2.2 Overview of 5S

5S is a systematic method of workplace organization, originating from five Japanese words: *seiri* (sort), *seiton* (set in order), *seiso* (shine), *seiketsu* (standardize), and *shitsuke* (sustain) (Satria et al., 2022). It is designed to create a more organized, efficient, and productive work environment. The key success factors for implementing 5S in the workplace include defining clear goals, involving the entire team, following the 5S steps, conducting regular audits, benchmarking, and continuous learning.

The 5S method originated in the Toyota Production System (TPS), where it was a key component in developing the principles of lean manufacturing and continuous improvement (Monteirro et al., 2015). According to studies by Ohno (1988), the 5S methodology developed as an outline for setting up a productive and organized workplace that is beneficial to reducing waste and optimizing value.

According to Soon (2019), through the identification and elimination of waste related to the manufacturing system, the 5S pillars will have an impact on workplace improvements. The best way to explain it is to translate the five Japanese words that start with the word S into the following words in English. The acronym 5S refers to five Japanese words, all of which start with the character "se" or "shi." They are Shi-tsu-ke, Se-i-ri, Se-i-to-n, and Se-i-k-tsu. 5S is an effective TQM tool that can significantly enhance the performance of the whole organization (Pranav, 2021). Sorting, Set in order, Shine, Standardizing, and Sustain are the five Japanese terms that Hiroyuki Hirano introduced in the 1980s and are the basis for the term 5S. (Rahman, 2016).

2.2.1 Origin of 5S

According to research by Noor (2015), Japan developed the "5s" methodology to improve employee productivity, efficiency, and safety. Ablanedo-Rosas et al., 2010 stated that 5S is a tool for improving operations and helping companies to eliminate waste and increase profits. Previously, 5S was referred to as the Toyota Production System (TPS). It was created in 1950 by Japanese industrial engineers Taiichi Ohno and Eiji Toyoda (Hirano, 1995). The

"TPS" system was changed and given the name "5S" by Taiichi Ohno, his son Kiichiro, and Sakichi Toyoda (the father of the Japanese Industrial Revolution) following several further improvements to the previous version. However, the concept's origins date back to the 16th century when shipbuilders in Venice employed a similar idea to speed up the assembling process. Since then, many companies have used this 5S method to reduce waste and improve procedures to produce a more efficient work environment. Implementing correctly can produce more output, better safety, and lower waste (Pannell, 2022).

Two frameworks were provided to implement the 5s methodology. The 5S methodology of work later served as a framework for the development of lean manufacturing, Just-In-Time (JIT) processes, and Total Productive Maintenance (TPM) (Singh et al., 2013). Hiroyuki Hirano introduced the second 5S framework. Hirano's method consisted of just the "4s," with Shine and Set in the order being viewed as a single element. In contrast, Osada's earlier framework proposed that maintaining discipline in training and education contributes to raising work standards and quality of work (Noor, 2015).

2.3 Concepts of 5S

2.3.1 Introduction

5S is a method to reduce waste while optimizing productivity and improving workplace efficiency (Muotka et al., 2023). Using 5S is a good starting point for companies aiming to build a culture of continuous improvement. A 5S implementation helps in establishing general guidelines for eliminating waste and keeping a productive, secure, and clean workplace. (Hiwale et al., 2018). According Tahasin et al., 2021) the 5S approach is divided into five stages; each stage represents one of the five pillars of achieving and maintaining excellent cleanliness. 5S originated from five Japanese words, which are Seiri, Seiton, Seiso, Seiketsu, and Shitsuke. meanwhile, in English, these 5S meanings are Sort (Seiri), Set in order (Seiton), Shine (Seiso), Standardize (Seiketsu), and Sustain (Shitsuke).

a) Sort (Seiri)

The first pillar of S is Sort, also known as Seiri in Japanese, which aims to create a more organized and efficient workplace by categorizing a group of items as either necessary or unnecessary, removing unnecessary items from the necessary ones, and eliminating the rest of the items (Dennis, 2021).

Abdul Aziz (2014) states that there are three main steps in the Sort pillar. The first step involves recognizing and categorizing items according to their function and significance in the manufacturing process. In this step, materials, tools, and other items are categorized according to how they are used and how important they are to the production process. The second step is eliminating unnecessary items from the workspace. By doing this step, it can reduce waste and potential safety issues in the office and make it cleaner and more organized. The third step is to keep items in order by regularly assessing and making changes to the workspace's arrangement to make sure it stays organized and neat.

Implementing the Sort (Seiri) pillar can have several benefits for organizations. By eliminating unnecessary items and clutter, organizations can create a more efficient workplace, leading to improved productivity, reduced waste, and lower costs (Hiwale et al., 2018).

b) Set in Order (Seiton)

The second pillar is Set in Order (Seiton), which involves properly organizing the work area and efficiently arranging all necessary items. This ensures that all things are easy to locate and utilize, reducing time and lowering the possibility of mistakes or accidents. Developing an orderly workplace with easily accessible equipment and supplies is the main objective of Set in Order (Raut and Kadam, 2023). There are some key aspects of Set in Order that contribute to its effectiveness.

First of all, it involves classifying items into fixed locations. This helps the development of a more efficient and well-organized workplace by providing a standard and consistent way of storing and retrieving items (Islam et al., 2019). Furthermore, visual

identification in the form of labels, signs, and checklists is necessary to ensure that items are easily found and placed back in their correct places. This visual management strategy also helps create a stylish workplace where issues are quickly recognized (Fardhosseini et al., 2021). Set in Order or Seiton also implies the importance of maintaining the highest level of safety at work. It helps to create a safer workplace by arranging items to maximize productivity and reduce the risk of incidents and injury. In another, Seiton wants to make sure that everything important in the office has its place, which helps to create a more effective and orderly environment. Additionally, as stated by Abu Shaaban (2012) and Morey (2020), properly implementing the 'Set in Order' phase will help in achieving the following objectives:

Table 2.1: Benefits of Set In Order (Abu Shaaban, 2012; Morey, 2020)

No	Benefits
1	Minimize or remove time consumption to save time finding and selecting the unnecessary items.
2	Allows the workers to identify the items when the unnecessary items are taken out from their location.
3	Improve workplace utilization.

c) Shine (Seiso)

The third, which is Seiso, means ‘Shine’ or ‘Clean’ phase in 5S, involves cleaning and inspecting the workplace to ensure that it remains safe and easy to work. According to Sangode (2018), Seiso means to clean up. Every employee should clean their workplace every day to increase productivity. Therefore, in this clean and uncluttered environment, the employees will feel more comfortable and motivated, which may encourage them to increase ownership of the organization’s goals and vision. The example of cleaning checklist by Hirano (1996) is shown below:

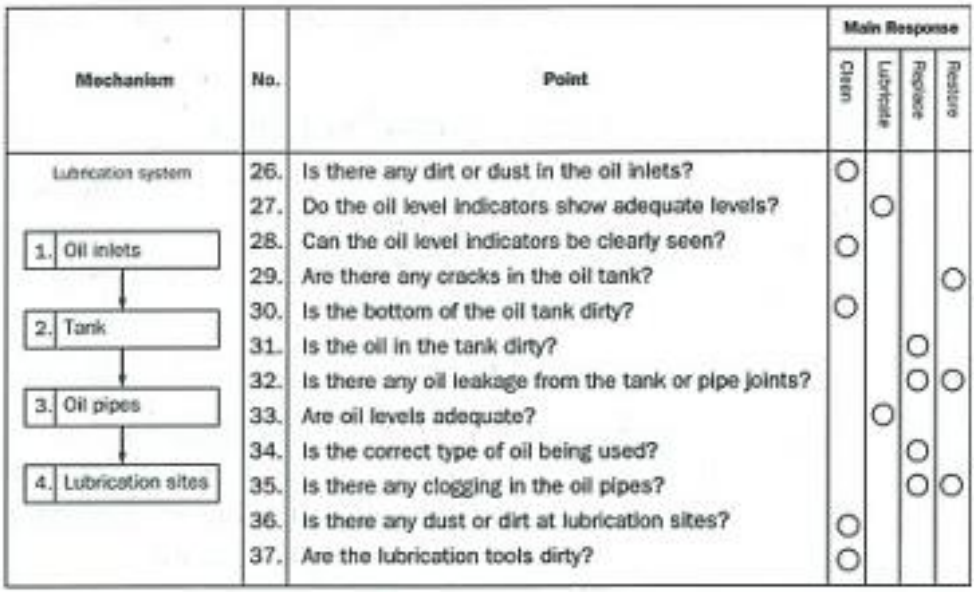


Figure 2.1: Cleaning Checklist (Hirano, 1996)

The main goals of Shine are to improve production process efficiency and safety by reducing waste, preventing errors and defects, and enhancing overall safety in the workplace (Czifra, 2017). Additionally, the janitorial and maintenance staff are not supposed to handle the shine step. Every employee has a responsibility to keep their workplace and tools tidy. According to Singh et al., (2014), the names of the employees in charge of cleaning each department, each zone, and each location inside the factory should be determined and noted in the appropriate locations to create a functional system.

d) Standardize (Seiketsu)

The fourth pillar of the 5S is Standardize (Seiketsu), which is the important phase that focuses on maintaining the highest possible standards in all aspects of the workplace. This phase also aims to ensure that the progress made in the first three stages of 5S—Sort, Set in Order, and Shine—becomes standardized and sustained (Raut and Kadam, 2023). It involves creating a set of standards for both organization and processes, essentially making the first three S's into rules for how and when these tasks will be performed (Agrahari, 2015). Standardization is essential for ensuring that the improvements achieved through the initial 5S steps are maintained and integrated into the daily work routine.

The Seiketsu phase aims for the best techniques for every specific work, situation, and purpose. It also aims to provide a standardized method for tasks and procedures. It involves establishing regular routines to help with work and creating standardized procedures that minimize tasks and ensure that an organization does not return as it was before the implementation of 5S (Patel and Kiran, 2022). The Seiketsu phase creates the framework for long-term development and transformation inside the company by creating standard regulations, defining the particular tasks and responsibilities of 5S for each individual, and the frequency and method of applying 5S for each job (Viindoo, 2022).

e) Sustain (Shitsuke)

The last phase of the lean 5S method is Shitsuke, which of one of the five pillars, 'Sustain' is the most important because it ensures that the improvements gained with the 5S approach are a continuous process rather than a one-time event. Making sure that the requirements set by the first four pillars are being achieved requires establishing a system of routine audits and checklists (Raut & Kadam, 2023). A case study by Khumalo and Gupta (2019) said that the Shitsuke is to sustain or maintain discipline before the previous Ss, Seiri, Seiton, Seiso, and Seiketsu. Shitsuke focuses on the importance of following proper procedures.

Sustainability, as described by (Soon, 2019), aims to sustain its success by completing the 5S program and requires a continuous assessment process through the 5S program to maintain performance improvement. It is important that all employees have self-motivation, adhere to systemic rules, and make independent decisions when contributing new ideas for the improvement and streamlining of the work process (Czifra, 2017).

2.3.2 5S Tools and Techniques

According to Deshpande et al. (2015) and Michalska and Szewieczek (2007), in order to implement the 5S method in the workplace, several tools and techniques can be used as follows:

Table 2.2: 5S Tools and Techniques (Deshpande et.al, 2015) and (Michalska and Szewieczek, 2007)

'S' Term	Tools and Techniques
Sort	Sorting unwanted materials from the workplace involves placing them in the red tag area and recording their details on a red tag card.
Set in Order	A specific location is designated for useful materials, which are then arranged in a predefined order.
Shine	Regular cleaning checklist allows for the identification and elimination of sources of disorder, helping to maintain clean workplaces. Provide 3S checklist
Standardize	Developed and implemented standards in the form of procedures and instructions to help maintain order in the workplace.
Sustain	Regular inspections such as 5S audit checklist to ensure adherence to the 5S principles

2.4 Implementation of 5S

According to research by Adzrie and Vincent (2020), the 5S method is a philosophy that allows users to design an organized strategy for routinely maintaining classification, order, and cleanliness. This improves the company's profitability, health, environment, employee satisfaction, dependability, performance, and competitiveness.

Before applying the 5S method in any company or industry, one should observe the comprehensive, step-by-step procedure that the sector uses to change raw materials into final goods. A basic understanding of the whole procedure helps with implementation (Mahadev et al., 2018).

a) Sort

At this stage, the equipment and unnecessary items were sorted to remove only the necessary items in the workplace. Unwanted items are marked with red tags and either thrown away or moved. Items and equipment will be gathered and reassembled at storage (Michalska and Szewieczek, 2007).

- Is this item needed?
- If it is needed, is it needed in this quantity?
- If it is needed, is it required very frequently?

If the answer to any of the above questions is known, then that item should be red-tagged and moved to holding areas. Figure 2.2 shows all decisions involved in assigning a red tag to items or equipment in a manufacturing company.

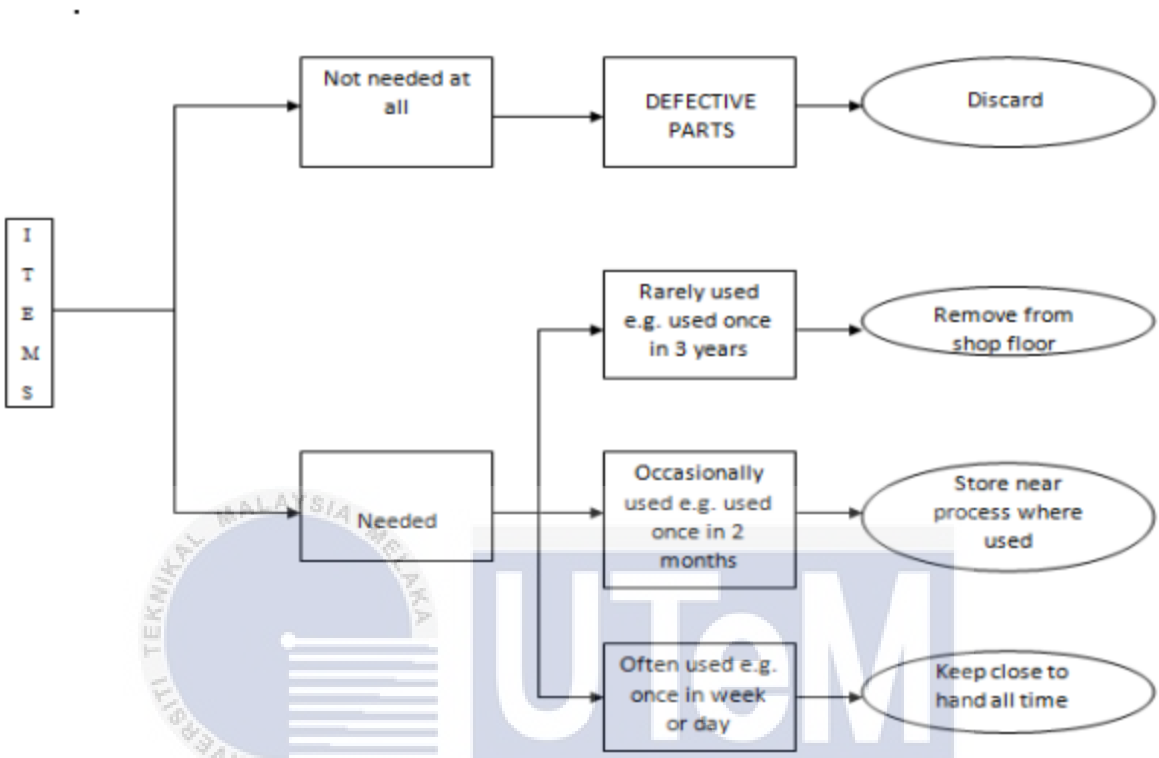


Figure 2.2: Flowchart for red-tagging items (Patel and Kiran, 2022)

If the answer to the question above is no, then the items will be removed from the workplace. Otherwise, the items will be held in the “Reg-Tag Holding Area” for some time to evaluate whether they are necessary or not (Hirano, 1996).

The red tag items will be reviewed and evaluated. The review and evaluation team would consist of managers or supervisors who can decide on the items' disposal. Steps in evaluating include:

- Keep the item where it is.
- Move the item to a new location.
- Store the item away from the work area.
- Dispose of the item.

b) Set In Order

This stage aims to organize the items and equipment so that the employees using them can locate and identify them easily (Satria et al., 2022). There are two phases in this stage. Phase I involves establishing principles for deciding the best location for items, equipment, and machinery. Phase II is to identify the best location once it has been decided (Crisóstomo et al., 2021).

For Phase I, the items need to be located in the workplace according to their frequency of use (Hirano, 1996).

Phase I:

- Place frequently used items near the place of use.
- Store infrequently used items away from the place of use.

If the items are used together, they need to be stored together in the sequence in which they are used. The storage needs to be larger than the items stored so that the items are easy to remove and put back. Store the items according to their functions and type of usage (Patel and Kiran, 2022).

The research by Patel and Kiran (2022) also states that after determining the best location, Phase II is identifying the location that will help employees understand the designated places for items and the quantity of each item assigned to those locations. The Signboard Strategy is used to identify what, where, and how many. There are three types of signboards:

- Location indicators, which show where items go.
- Item indicators, which show what specific items go in those places.
- Amount indicators, which show how many items belong there.

c) Shine

At this stage, to provide a clean, safe, and comfortable environment, the work area needs to be cleared of all dirt, waste, and foreign matter after the task is over. Any items and

tools that have been used must be returned to the same place to reduce the risk of missing items and hard to find (Sari et al., 2017).

- Determine shine target – warehouse items, equipment, and space.
- Determine shine assignments – use the 5S schedule to divide tasks based on the area and time of cleaning.
- Determine shine methods – choose the right equipment and tools, the shining should perform in 5 minutes. Also, create standards for Shine procedures.
- Prepare tools – keep all the tools near the location of shine.
- Start to shine.

d) Standardize

The previous 3S (Seiri, Seiton, Seiso) must be standardized to perform and maintain the area after the organization and cleaning of a workspace area (Shahriar et al., 2022). Standardization aims to maintain and improve performance of the previous three phases while reducing the possibility of faulty items (Agrahari et al., 2015).

- Phase I: Make it a habit
    i. Assing 3S responsibility – determine a person in charge of activity 3S. Everyone needs to understand their work function and tasks, specifically what they do, when, and how they do it. Tools for assigning 3S responsibilities include with 5S schedules and 5S Job Cycle.
    ii. Integrate 3S Duties into Regular Work Duties – used visual 5S that is designed to create a visual workplace and five-minute 5S to simply check a completed daily towards the end of the shift.
    iii. Check on 3S Maintenance Level – evaluate and review three pillars that are being maintained.

- Phase II: Prevention
    i. Prevent unneeded items from accumulating – At work, unneeded items continue to accumulate. In 1S, these must be routinely cleaned. Determine

"why" the unnecessary item is even entering the workplace and try to solve the problem to prevent this.

ii. Prevent things from having to be put back – make it difficult to put things in the wrong place and make it impossible to put things in the wrong place.

e) Sustain

In the final stage, 'Sustain' is a continuous improvement that involves self-discipline and a clear understanding of the 5S method (Rizkya et al., 2019). Also, according to Osada (2014), Sustain means having personal discipline.

- Awareness – everyone needs to understand the 5S.
- Time – make enough time in your work schedule to perform 5S implementation.
- Structure – make a structure on how and when 5S activities will be done.
- Support – management support is needed in acknowledgment, leadership, and resources.
- Rewards and Recognition – effort needs to be rewarded and recognized.
- Satisfaction and Excitement – the 5S activities need to be fun in the company. This needs to be shared throughout the entire organization.

The 5S training committee was established to spread the 5S methodology and equip the workforce to engage actively and effectively in 5S activities (Wani and Shindle, 2021).

2.4.1 Implementation of 5S in industries

The implementation of 5S in various industries has been widely studied and documented. Ashraf et al., (2017) demonstrated the effectiveness of 5S in a food and beverage industry, leading to improvements in efficiency and safety. Similarly, Ashok et al., (2018) found that 5S implementation in educational institutions enhanced motivation and created a

conducive work environment. The table below shows the various industries conducting 5S implementation.

Table 2.3: 5S implementation in industries

Research Title	Description
Applying 5s Method on Trims Store's Documentation System in an Apparel Industry	The article presents a case study of implementing 5S in the trims store department of SQ Birichina Limited, Bangladesh (Ishat, 2016). The implementation resulted in significant improvements, including a 27% increase in space utilization and an 82% reduction in time spent searching for files.
Implementation of 5S Practices in Small Scale Manufacturing Industries	Implementing 5S practices in a small-scale manufacturing industries like Swaghat Industries, has significantly improved productivity and safety. A study found that implementing 5S practices led to a 68% improvement in productivity and a substantial reduction in time consumption, highlighting the importance of well-organized workplaces in motivating employees and improving efficiency. This emphasizes the need for implementing 5S practices to significantly improve efficiency and productivity and enhance safety in the working environment (Kumar et al., 2022).
Implementation of 5S Practices in the Manufacturing Companies: A Case Study	Implementing 5S practices in manufacturing companies has improved housekeeping, environmental performance, and health and safety standards. A case study conducted by Wan-Mahmood (2008) on two manufacturing companies found that while both companies generally performed well in their 5S practices, some weaknesses needed to be addressed, such as the arrangement of documents, tools, and equipment. The study highlights the importance of top management commitment and participation in the success of 5S implementation, emphasizing that it is a key factor in achieving the desired outcomes.
5S Implementation in Warehouse for Manufacture of Plastic Bottles Factory	The application of 5S in warehousing, as detailed in the thesis by Soon (2019), addresses common issues such as clutter, inefficiency, and poor organization. In the case of Hon Chuan Malaysia, the implementation of 5S in their warehouse led to a cleaner, more efficient, and safer environment. The study identified several key benefits, including reduced time spent searching for materials, improved use of storage space, and enhanced company image during customer visits. By systematically applying the 5S principles, the warehouse operations became more streamlined, and waste was significantly reduced.

2.5 Defining Problem and Gathering Data

The first step in any research process is to define the problem clearly. Interviews and questionnaires are employed to examine the process's current operations and collect raw data to identify the problem (McLeod, 2015).

2.5.1 Observational Techniques

Developing a research question is often inspired by real-life observations, experiences, or events in the researcher's immediate environment that highlight a puzzling issue requiring systematic investigation (Johnson et al., 2020). An observational method is proposed to characterize the activities and behaviours of designers in practice. This method offers detailed context while preventing information overload (Cash et al., 2011).

2.5.2 Survey

According to Aocns (2015), survey research is the process of gathering information from a group of individuals by obtaining their responses to a set of questions. Survey research primarily involves methods focusing on research practices leading to quantitative analyses (Bihu, 2021). Survey methods, commonly employing questionnaires, are widely utilized in research studies, yet they are also frequently misused (Young, 2015). Questionnaires should be designed with a clear purpose that aligns with the research objectives, and it is essential to determine from the beginning how the findings will be utilized (Roopa and Rani 2012). The questionnaire is created to establish a framework for assessing the performance of industrial organizations before implementing the 5S method and comparing it with their performance post-implementation (Ghodrati and Zulkifli, 2013). In addition, the questionnaire was assessed using a Likert-type scale both before and after 5S implementation. The scale ranges from "Very Poor" to "Excellent," with corresponding numerical values from 1 to 5, respectively.

2.5.3 Descriptive

Ghodrati and Zulkifli, (2013) explore the performance impact of 5S implementation across several industrial organizations in Malaysia using a descriptive research approach and survey method. The study collected data from five industries that have implemented the 5S method, and the analysis was measured using SPSS software.

According to Bhatti et al., (2019), different types of t-tests are identified, including the Independent samples t-test, one sample t-test, and paired samples t-test. These tests serve to assess differences between variables. Specifically, the paired samples t-test, also known as a correlated pairs t-test, evaluates discrepancies between paired variables. Significance in the difference between variables is determined through a comparison of the mean, t-value, and p-values. When the p-value is lower than the alpha value of 0.05, it indicates a significant difference and strong correlations between the variables.

2.5.4 Time Consumption Analysis

Time consumption analysis in the context of 5S involves evaluating the amount of time spent on various activities related to implementing and maintaining 5S practices within an organization (Smith & Johnson, 2020). Salunkhe et al. conducted a study to reduce the time wasted searching for spare parts for the maintenance work industry. After implementing the 5S, significant improvements were observed in searching time, and better inventory control was achieved by maintaining minimum levels of shelf-life items (Bharambe et al., 2020). According to Morey (2020), the case study was conducted at the Mahindra & Mahindra plant Tractor division at MIDC Nagpur. As a result, the implementation of 5S reduces both the time and number of breakdowns. This improvement is due to increased standardization from applying 5S principles and employees becoming more proficient in their work environment.

2.6 Benefits and Barriers in Implementation 5S

Implementing 5S in the workplace is challenging because it involves changes in attitudes, cultures, and process layouts (Gokulanaath, 2018). The table below shows the benefits and barriers to implementing 5S.

Table 2.4: The benefits and barriers of 5S implementation

Benefits	Barriers
5S is a beneficial way to start an organization and spread a design. It will improve communication and help employees develop their characteristics to reduce downtime, lead time, inventory, defect, and associated costs (Singh et al., 2014).	Poor communication is the most significant barrier to successful 5S implementation. Communication skills and their effectiveness are frequently reviewed, and communication problems are usually addressed in an industrial environment. Poor communication can waste resources, time, and money while also reducing employee satisfaction (Singh et al., 2014).
There is less clutter to trip or fall on when tools and equipment are easier to find and use. Keeping equipment handy can help reduce worker fatigue from an ergonomic perspective. Cleaner workplaces also help to reduce the risk of slip and fall incidents and other safety hazards (Hiwale, 2018)	5s implementation requires technology advancements. To support implementation, the company should be financially stable. Industries with limited resources may face budget constraints when implementing 5s (Mahadev, 2018).
Companies can save money and improve their bottom line by decreasing waste. The 5S methodology indicates the concept of "Sort," which involves finding and removing unnecessary things. Companies can save money by reducing the quantity of material handling, storage, and equipment needed (Hiwale, 2018)	Before implementing a new technique, the company should conduct a skills survey of its employees. The company should therefore be willing to train the employees to keep up with new skills and trends (Mahadev, 2018)

CHAPTER 3
METHODOLOGY

Methodology is one of the most important chapters in completing this case study. This chapter describes the investigation method used to achieve all the objectives. This chapter also explores the 5S techniques and tools, detailing how to implement them at each step to maintain a clean, efficient, and safe in office areas.

3.1 Relationship between Objectives and Methodology

Table 3.1 shows the relationship between objectives and methodology. This table illustrates on how the approach may be used to reach the objectives.

Table 3.1 Relationship between objectives and methodology

Objectives	Methodology
To study the current 5S and its potential to be applied in filing management	• Industrial visit • Observation • Finding literature review
To implement a standardized 5S method in filing management to ensure consistency in file handling	• 5S tools and techniques • Implementation of 5S
To validate the design filing management that allows quick and easy retrieval of files and information	• Survey pre/post implementation of 5S • Checklist Assessment

3.2 Flow Chart

The flowchart was developed based on this research's objective and problem statement. The flowchart is used to create a planning process. It is important to look at all the developed approaches to reach the objectives. The flowchart consisted of three stages that covered all three objectives. The first stage refers to the observation by industrial visit. The second stage is the purpose and implementation of 5S. The last stage is to validate after the implementation of 5S.

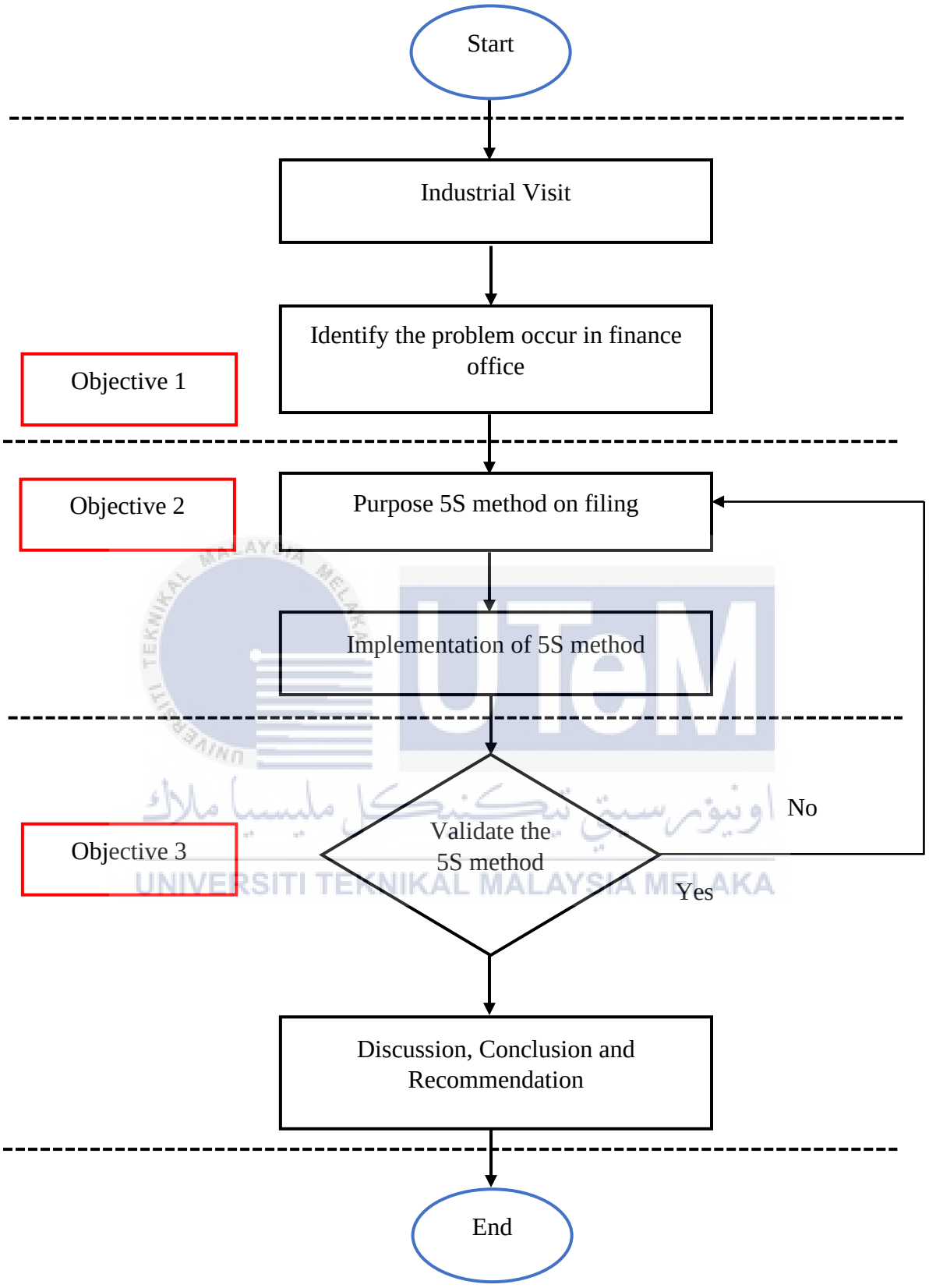


Figure 3.1: Project flow chart of implementation of 5S

3.3 Methodology for Objective 1

To achieve Objective 1, the first step is to go on an industrial visit at Prym Consumer Malaysia Sdn. Bhd. Then, study some research from the literature review to understand the 5S method and focus on implementing 5S in the office.

3.3.1 Industrial Visit

The industrial visit aims to identify current problems and gain more detailed insights into the finance office. During the industry visit, pictures were taken to observe the current issues in the file storage areas at the finance office. This visual documentation allows me to identify specific problems. Before entering the industry, there were procedures that needed to be done; the student needed to register at the guard for the logbook and visitor gate pass form. Figure 3.2 shows the visitor gate pass form at the company.

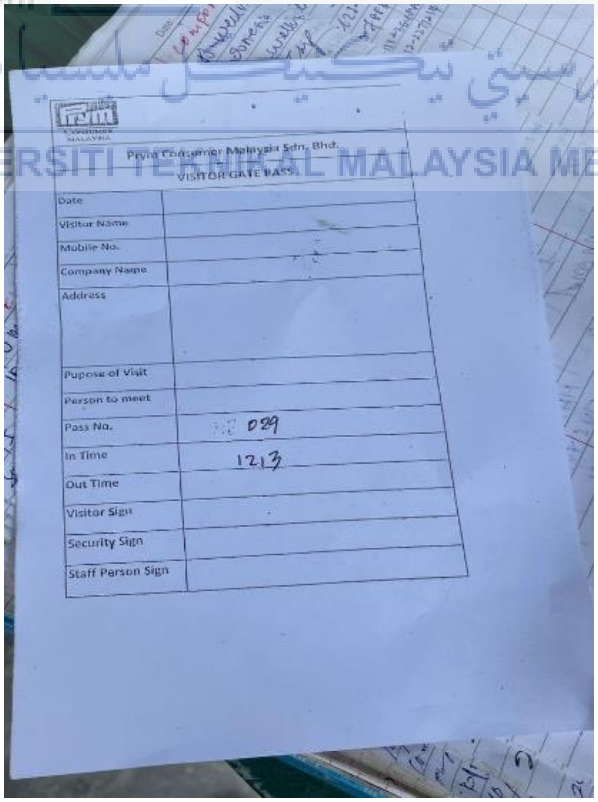


Figure 3.2: Visitor Gate Pass Form

The table below shows the schedule of company visits throughout the research completion during semesters 1 and 2.

Table 3.2 Schedule visiting the industry

DATE	TIME	TASK
15/11/2023	2pm-6pm	• Introduction of the company and Prym's staff
21/11/2023	2pm-6pm	• Meeting with supervisor industry and 5S Team
22/11/2023	3pm-6pm	• Identify the files that are needed and unneeded • Remove unnecessary items
23/11/2023	2.30-5.30pm	• Red tagged all unnecessary files • Remove to holding area • Index number – start dari tahun 2021
7/12/2023	3pm-6pm	• Arrange the files in the correct position • Create new file tags for 2021
14/12/2023	3pm-6pm	• Create file tags 2022, 2023, 2024
19/12/2023	2pm-6pm	• Continue creating file tags
26/12/2023	10am-6pm	• File tags (2021-2024) – print, cut, laminated
27/12/2023	1pm-4pm	• Continues cutting and laminated file tags
4/1/2024	2pm-3pm	• Replaced new file tags on files
23/1/2024	3pm-6pm	• Continue replace file tags
25/1/2024	2pm-5pm	• Continue replace file tags
29/1/2024	2pm-4pm	• Continue replace file tags
30/1/2024	11am-1pm	• Create index system (separator)
28/3/2024	2pm-4pm	• Continue with index system • Establish cleaning schedule
2/4/2024	2pm-5pm	• Inspection cleaning schedule • Develop SOP
3/4/2024	2pm-4pm	• Checklist Assessment
23/4/2024	2pm-4pm	• Conduct survey • Training with employees
29/5/2024	2pm-4pm	• Audit in file storage areas
5/6/2024	2pm-4pm	• Presentation with Prym's company

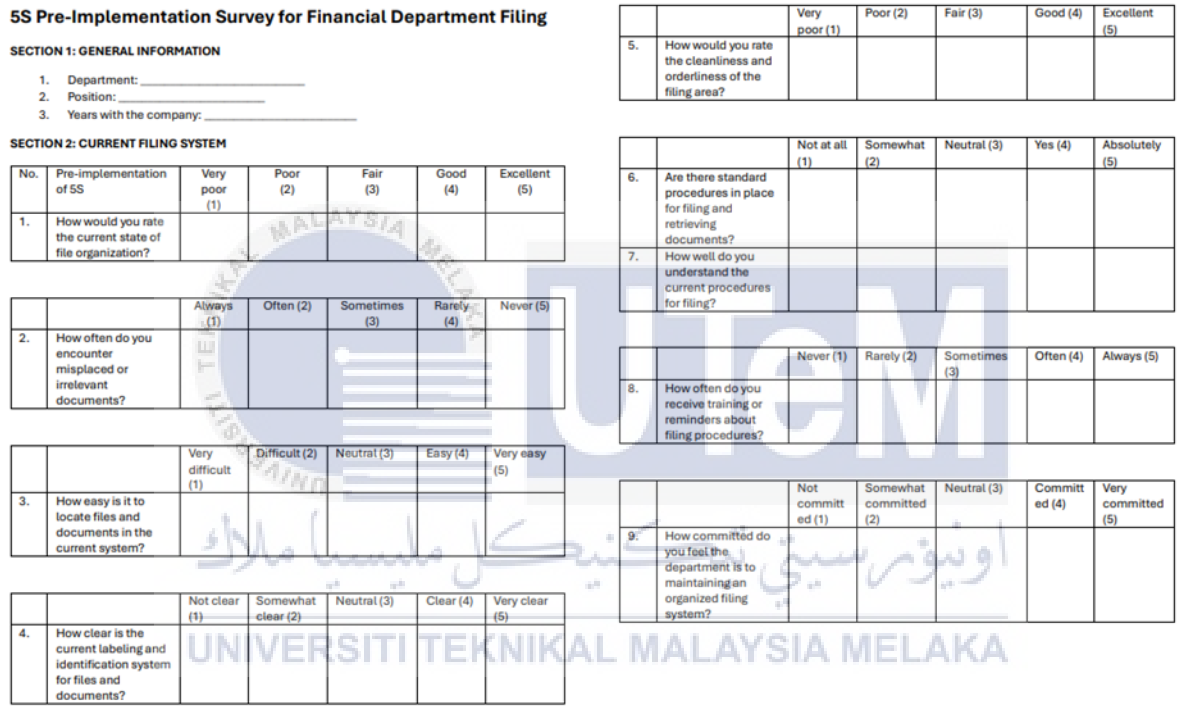
3.3.1 Observation

During the initial phase of implementing the 5S methodology, a pre-implementation survey was conducted with several finance office employees to identify the problems employees faced in file management. This included visiting the industry and workplace where 5S would be introduced. During the industry visit, a team of 5S implementation specialists from the organization observed the office environment's current working conditions, layout, and practices.

Figure 3.3: Visiting the Prym Consumer Company

An important part of this visit is the briefing provided by the industry supervisor, who gives detailed insights into the existing regulations and protocols in place within each office and department. This briefing covers workplace organization, cleanliness standards, safety regulations, and operational procedures. The observation was done by taking photographs, and noting down the issue in finance office. This observation helps identify potential gaps and areas for improvement, such as cluttered workspaces, lack of standardized processes, inadequate labeling, or insufficient cleaning schedules. Engaging with employees and management is also critical to understand their perspectives and practical challenges. The information gathered

during the industry visit and supervisor briefing forms the foundation for developing a comprehensive 5S implementation plan, which outlines the steps to be taken, resources required, and timelines for implementing 5S practices across the organization. The figure shows the sample of the pre-implementation survey during the initial phase of the industrial visit.



5S Pre-Implementation Survey for Financial Department Filing

SECTION 1: GENERAL INFORMATION

1. Department: _____
2. Position: _____
3. Years with the company: _____

SECTION 2: CURRENT FILING SYSTEM

No.	Pre-implementation of 5S	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
1.	How would you rate the current state of file organization?					

		Always (1)	Often (2)	Sometimes (3)	Rarely (4)	Never (5)
2.	How often do you encounter misplaced or irrelevant documents?					

		Very difficult (1)	Difficult (2)	Neutral (3)	Easy (4)	Very easy (5)
3.	How easy is it to locate files and documents in the current system?					

		Not clear (1)	Somewhat clear (2)	Neutral (3)	Clear (4)	Very clear (5)
4.	How clear is the current labeling and identification system for files and documents?					

		Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
5.	How would you rate the cleanliness and orderliness of the filing area?					

		Not at all (1)	Somewhat (2)	Neutral (3)	Yes (4)	Absolutely (5)
6.	Are there standard procedures in place for filing and retrieving documents?					
7.	How well do you understand the current procedures for filing?					

		Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
8.	How often do you receive training or reminders about filing procedures?					

		Not committed (1)	Somewhat committed (2)	Neutral (3)	Committed (4)	Very committed (5)
9.	How committed do you feel the department is to maintaining an organized filing system?					

Figure 3.4: Pre-implementation survey

3.4 Methodology for Objective 2

After conducting an industrial visit and researching the 5S method from literature review, I propose implementing the 5S method for filing management in the finance office. To achieve this objective, I have engaged in discussions with the industry regarding the procedures and tools that will be employed. Furthermore, the discussions will facilitate the identification of suitable methods and procedures for filing management.

3.4.1 Implementation of 5S tools and techniques

5S consists of sort (Seiri), Set in Order (Seiton), Shine (Seiso), Standardize (Seiketsu), and Sustain (Shitsuke). These five pillars are the foundation of the 5S implementation activities to achieve waste reduction through maintaining an orderly workplace.

i. Sort (*Seiri*)

- Categorizing the items and files in the file storage areas to determine their necessity.
- Remove all unnecessary items and files from the file storage areas.
- Using the red tag method to determine the necessary and unnecessary items or files. A red tag is a tool often used to guide the sorting process.
- Involve the employees in the office in deciding what items and files should be kept and what should be removed. They can use red tag to evaluate the items and files in the file storage areas.
- Based on the red tags, determine the appropriate disposition for each item and files marked as unnecessary. Options may include recycling or disposing of the items and files in an environmentally responsible manner.

Area:	Date:
Red Tag Card #:	
Description:	
Tagged By:	
Category (Circle One)	
Material Equipment Supplies IT	

Figure 3.5: Red tags

ii. Set in Order (*Seiton*)

- Deciding the best locations for files and documents that are easy to retrieve. Consider the location of the files and documents according to their frequency of use and should be easily reachable. Starting with 2021, the files have been arranged from the top shelf to the bottom. Also, the files are placed from the right cabinet to the left.
- The file cabinets and shelves are clearly labeled for efficient filing system. Each label indicates the specific category of files and documents stored in that location.
- Arrange files in a correct position and systematic order. This could involve categorizing files based on types and categories.
- Implement an indexing number for each file. This number serves as a reference for easy-to-locate specific categories or sections.

iii. Shine (*Seiso*)

- Always keep the file storage areas clean. In any case, a clean workplace provides a good environment. By keeping the floor and shelves free of dust and dirt can help prevent any potential infections or other health hazards.
- Cleaning can be used as an inspection tool. Clear expectations are necessary for positive employee interaction and results. Also, the cleaning process is focused on files and storage areas.
- Establish a weekly cleaning schedule in the office. Assign the responsibilities for the cleaning schedule and the task will rotate regularly to ensure all employees participate in the cleaning process.
- The damaged and torn files are promptly replaced with new ones. Regular inspections are conducted to identify and address any issues with file quality.

iv. Standardize (*Seiketsu*)

- Making the sort, set in order and shine a routine in the workplace. By incorporating these practices into daily routines can create a conducive environment in the office. Provide a regular checklist for 3S (Sort, Set in Order, Shine) to ensure the file storage areas remain orderly and clutter-free. The 3S checklist provides clear guidance on what needs to be done and improved.
- Develop the standard of procedures (SOPs) for file handling. The SOPs provide clear standards and procedures to ensure consistency in file handling.
- Color-coded can be used to categorize files department-wise, making it easier to differentiate the types of files for each department. Assigning specific colors to every department can help employee quickly identify and locate files related to their department.
- Create the template for file tags that each department will utilize the same template to ensure a standardized appearance across all departments. This standardization helps maintain consistency and clarity in file identification and retrieval processes. The template include consistent formatting for names, index number, and other relevant information.

Department Name	Colour Code
Module F1	
Module F2	
Module F3	
Safety	
Dispatch	
HR	
Finance	
MIS	
Procurement & purchasing	
Manufacturing & Product Engineering	
Planning & Order Fulfilment	
Customer Service	
Quality Control	

Figure 3.6: Color-Coded

Figure 3.7: File tags

v. Sustain (*Shitsuke*)

- Provide training for the employees to help them quickly learn and understand the procedures for file handling. Besides that, provide training sessions about the purpose of 5S method. These training sessions should encompass detailed instructions and practical demonstrations to ensure the employees clearly understand the procedures and purpose of the 5S method. By providing comprehensive training on both file handling procedures and the 5S method, employees can effectively contribute to maintaining an organized and efficient workplace environment.
- After the initial training, it's crucial to remain vigilant by utilizing the audit checklist during the standardization process to ensure consistent smooth operations. Training employees to conduct these checks accurately also helps in develop positive habits.

3.5 Methodology for Objective 3

After the implementation of 5S in filing management, the 5S method will be validated in this stage. I will conduct a survey and questionnaire among employees during this stage, using Survey Form to gather their feedback and opinions after implementing 5S.

The validation stage will focus on employee satisfaction with the new filing management, including ease of use, accessibility, and time spent searching for files in file storage. A paired t-test was performed to determine if there were significant changes post 5S implementation based on file management performance. This involves measuring the changes in workflow efficiency by analyzing the time saved in file retrieval and the reduction in clutter and unnecessary files.

3.5.1 Survey

The pre-implementation and post-implementation survey consisted of 9 questions and scale from 1 to 5. Utilizing a survey will play a crucial role in the case study focused on the effectiveness before and after implementing 5S in filing management. The survey will be created to gather information and feedback about their satisfaction after implementing 5S. By administering a survey to employees, it is to evaluate their level of satisfaction after implementation and understanding about the 5S method. Figure 3.7 shows an example of a survey designed to assess employee satisfaction for pre and post-implementation of 5S.

5S Post-Implementation Survey for Financial Department Filing

No.	Pre-implementation of 5S	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
1.	How would you rate the state of file organization after the 5S implementation?					

		Always (1)	Often (2)	Sometimes (3)	Rarely (4)	Never (5)
2.	How often do you encounter misplaced or irrelevant documents after 5S implementation?					

		Very difficult (1)	Difficult (2)	Neutral (3)	Easy (4)	Very easy (5)
3.	How easy is it to locate files and documents after 5S implementation?					

		Not clear (1)	Somewhat clear (2)	Neutral (3)	Clear (4)	Very clear (5)
4.	How clear is the labeling and identification system for files and documents after 5S implementation?					

		Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
5.	How would you rate the cleanliness and orderliness of the filing area after 5S implementation?					

		Not at all (1)	Somewhat (2)	Neutral (3)	Yes (4)	Absolutely (5)
6.	Are the storage locations for files and documents clearly defined and consistently used after 5S implementation?					
7.	How well do you understand the standard procedures for filing after 5S implementation?					

		Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
8.	How easy do you find the standard procedures to follow after 5S implementation?					

		Not committed (1)	Somewhat committed (2)	Neutral (3)	Committed (4)	Very committed (5)
9.	How often do you receive training or reminders about the 5S practices after implementation?					

Figure 3.8: Post implementation surve

CHAPTER 4
RESULT AND DISCUSSION

This chapter will focus on the results after implementing 5S in file management at the finance office department. It consists of many pictures showing the filing management improvements before and after 5S implementation. This case study took place at Prym Consumer Malaysia Sdn. Bhd., specifically in the finance office department, as mentioned in Chapter 1. It is located in Tanjung Kling, Melaka. By conducting the study within this specific organizational context, the findings presented in this chapter offer valuable insights and practical implications for other departments within the organization, as well as for similar organizations seeking to optimize their file management systems.

4.1 Results and Discussion of Objective 1

The first objective of this research is to study the current potential of the 5S method to be applied in file management at the finance office department. This research includes both primary and secondary data sources. Before implementing the 5S method, a pre-implementation survey was conducted with employees to gather primary feedback about the current conditions in file management. In addition, secondary data was collected through observation in finance office.

4.1.1 Observation

The observation was done by taking pictures during the industrial visit. The purpose of the industrial visit is to analyze the current problem of file management, including issues such as disorganization, difficulty in locating documents, and inefficiencies in file retrieval

processes. By capturing visual evidence through photographs, this study aims to provide a comprehensive understanding of the existing challenges faced in file management within the finance office department. These observations will serve as a foundation for assessing the suitability of implementing the 5S methodology as a solution to address these identified problems, ultimately aiming to enhance organizational efficiency and productivity.

4.2.1 Current in File Management

The finance office faces significant problems in file storage areas. Implementing the 5S method in file management is a fundamental part of improving organization, efficiency, and security in the office. It involves organizing, storing, labeling, and maintaining files in a way that makes employees easily accessible when needed. Effective file management can support the smooth functioning of the office by reducing time spent searching for files, minimizing errors, and enhancing overall productivity.

As shown in the picture below, the current file management system can be seen in Figure 4.1 before the implementation of 5S. It is clear that one of the biggest problems was the disorganization in the file storage areas.

Figure 4.1: Unorganized file storage

Additionally, Figure 4.2 shows small papers scattered on the floor in the file storage area, indicating a lack of a regular cleaning routine in that place. Besides that, the file storage area was not maintained properly, which could lead to further issues and a negative impact on the file storage environment. The presence of these small papers highlights the need for implementing systematic cleaning and maintenance practices to ensure a more organized and efficient file storage area.

Figure 4.2: Unclean floor in file storage area

a) Disorganization

Files were mixed and placed randomly in the file storage area without categorization by year or type. This lack of systematic organization made it extremely difficult for employees to locate files quickly. The absence of clear categorization or labeling meant that staff members had to spend excessive amounts of time searching for specific documents. This disorganization led to wasted time and significantly reduced productivity, as employees struggled to navigate through the chaotic storage system to find the information they needed, hampering their efficiency and workflow. Also, the files are not arranged according to their years and categories. Some of the files were mixed with other years and categories, showing very messy on the file storage. In addition, a few of the files were lost or misplaced on other file storage shelves.

Figure 4.3: Not arranged according to year and categories

b) Old and Outdated Files

File storage areas were overcrowded with old and outdated files on the shelves due to not being regularly cleaned and maintained. Dust and files were damaged because they were not stored properly, making the areas look messy and disorganized.

Figure 4.4: Overcrowded file storage area with old and outdated files on the shelves

c) Lack of labeling and signage

There were no designated files in the file storage area. Many files were not labeled clearly or consistently, making it difficult for employees to identify the information. In addition, there was a lack of clear signage in the file storage areas. Shelves, cabinets, and sections of the file storage were not marked with signs indicating what types of files were stored. This lack of signage causes employees to waste time searching through multiple sections to locate the necessary file.

Figure 4.5: Lack of signage on file cabinets

d) Lack of colour coding

The lack of a color-coded system for departmental files results in unstandardized file storage areas, leading to several negative consequences for an organization. The figure below shows that no specific color-coded is used on file to differentiate their department.

Figure 4.6: No color-coded on files

e) Lack of indexing system

There was no effective indexing system to separate the pages and categorize the information in the file. An indexing system helps organize files systematically, making retrieval faster and more efficient. Without an indexing system, employees struggled to find specific pages, especially when dealing with thick volumes of paper in the file.

In addition, the file tags were unclear, and some of the files were torn and handwritten with a marker pen, making it difficult for the worker to identify the specific files. Also, they used an envelope for the index divider, which will require the employees to spend their time finding the information in the file.

Figure 4.7: Unclear file tags

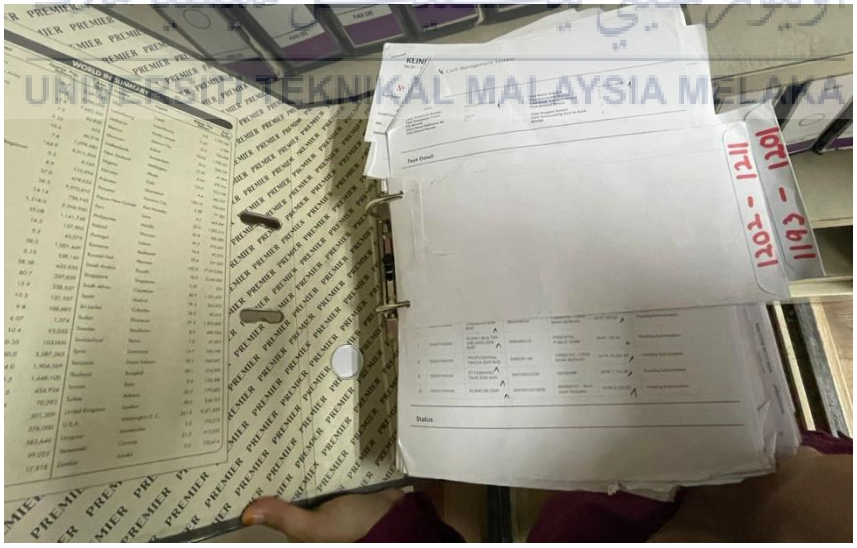


Figure 4.8: The Index divider is not proper

4.2 Results and Discussion of Objective 2

This research result continued after doing the first objective, which to propose a standardized 5S method in file management. Various collection 5S tools and techniques were used extensively to achieve this second objective. These encompassed sorting through files to eliminate unnecessary clutter, designing and implementing systematic filing management, instituting regular cleaning and maintenance protocols, establishing standardized procedures for file organization, and cultivating a culture of sustained improvement and accountability within the finance office department. By adopting a comprehensive approach that embraced multiple 5S principles, this study sought not only to tackle the immediate challenges highlighted during the initial observation phase but also to establish a foundation for enduring efficiency and sustainability in file management practices.

This section also carried out the 5S implementation to monitor the improvement in productivity and efficiency of file management. During this phase, 5S activities were implemented sequentially in the file storage areas with the assistance of office employees.

4.2.1 Implementation in file management

a) Sort (Seiri)

Sorting out is the first step in implementing 5S in the file storage area. The unnecessary files were identified with red tags and moved to a holding area. The files in the holding area were kept for one week before further action. After that, they were reviewed and assessed before determining their final disposition, ensuring careful consideration of whether they should be achieved or discarded. Furthermore, keeping files in a designated holding area ensures easy accessibility for employees needing reference during the holding period. Any files remaining after this period were moved into the documentary room for long-term storage or disposed of in accordance with established protocols. Figure 4.2 shows that the file were red tagged.

Figure 4.9: Files were red-tagged

While the unnecessary files were sorted out, it was found that there were no unnecessary files in this section that could be removed from storage. This is because of a few questions need to be answered in section 2.4 (a): the frequency of the files used in a certain period. For this purpose, the data of the files used from 2021 until 2023 years has been collected from the office management team to determine the frequency of the files used. The staff in the finance office should be aware of the unnecessary files that are out of year or damaged, which will be removed during the implementation process. Figure 4.3 represents the condition of the file cabinet before sort and after sort in implementation of 5S.

(a) (b)

Figure 4.10: Implementation of 5S – (a) Before sorting (b) After sorting

b) Set in Order (Seiton)

The ‘Set in Order’ step involves selecting the necessary file from the previous step and arranging the files in file storage areas. The file cabinets and shelves were labeled according to frequency of use, as well as easy identification and retrieval of files. Besides that, all the files were classified properly according to their indexing system by year and categories. All files were arranged in the correct position to ensure there were no empty spaces on the shelf, and it should be easy to retrieve and put back on the shelf. The figure below illustrates the state after implementing the set in order.

Figure 4.11: Design the location in file cabinets

Figure 4.12 : Files are arranged in the correct location

c) Shine (Seiso)

Shine is a process-oriented activity that involves removing the causes of waste and dirt. A weekly cleaning schedule was developed to maintain the cleanliness of file storage areas. Assigned responsibilities for the cleaning schedule and the task were rotated regularly to ensure all of the staff in the office were involved in the cleaning schedule. The entire area was cleaned

and organised, including the shelves, files, and floor. The new file tags have been created, printed, and laminated to make them look more professional than before and to ensure the quality of the file tags lasts longer, for 6 to 9 months. Also, the damaged and torn files were replaced with new ones. In addition, the index divider was changed by using the colour separator A4 paper. The figures below shows after the implementation shine stage in file management.

Figure 4.13: Cleaning Schedule Checklist

Figure 4.14: File tags were printed and laminated

Figure 4.15: New files were replaced

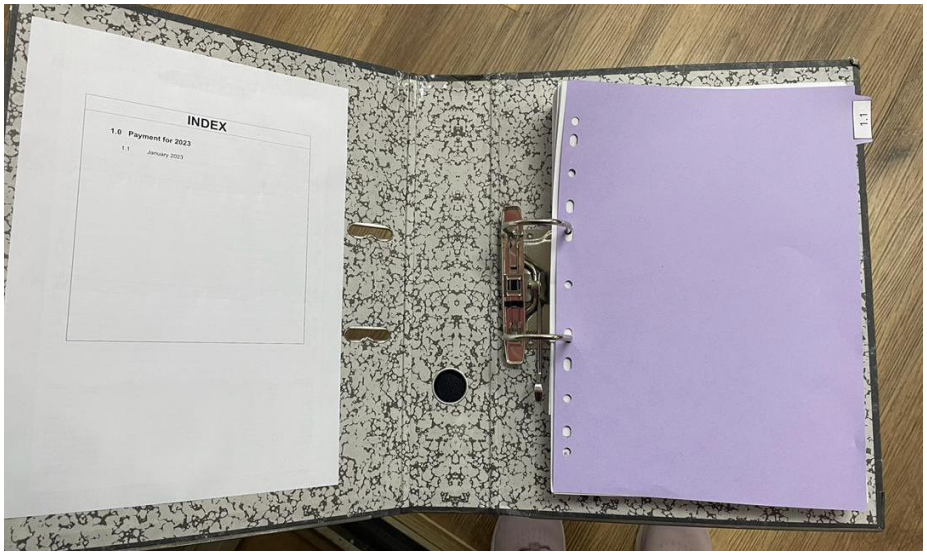


Figure 4.16: Complete index system in files

d) Standardize (Seiketsu)

The several steps followed are setting standards for a consistently organized file storage area. In other words, this stage implements development criteria and maintains the previous 3S (Sort, Set in Order, Shine). Sorting involves continuously removing unnecessary files and documents from the storage area to prevent clutter, and only necessary files remain. Meanwhile, setting in order involves organizing the remaining files systematically, including arranging files in categories and labelling the storage locations. Furthermore, shining involves regularly cleaning the file storage area, which helps identify misplaced items and ensures that the area remains efficient. A regular checklist for the previous 3S activities has been developed to ensure these activities were consistently applied. This checklist was designed to address and note any needed improvement for file management.

In addition, (Appendix A) the standard operating procedure (SOP) was established for file handling, outlining the step-by-step guidelines for handling new files. By using the SOP, employees can correctly handle new files in a organized way. This keeps the organization's document storage system organized and easy to access. The files for the finance office were color-coded (purple) to differentiate them from other departments. The new template for file tags has been created, and all departments will use the same template to ensure consistency. Figures 4.15 and 4.16 illustrate the standardized procedure in file management.

Figure 4.17: The different color-coded files to differentiate each department

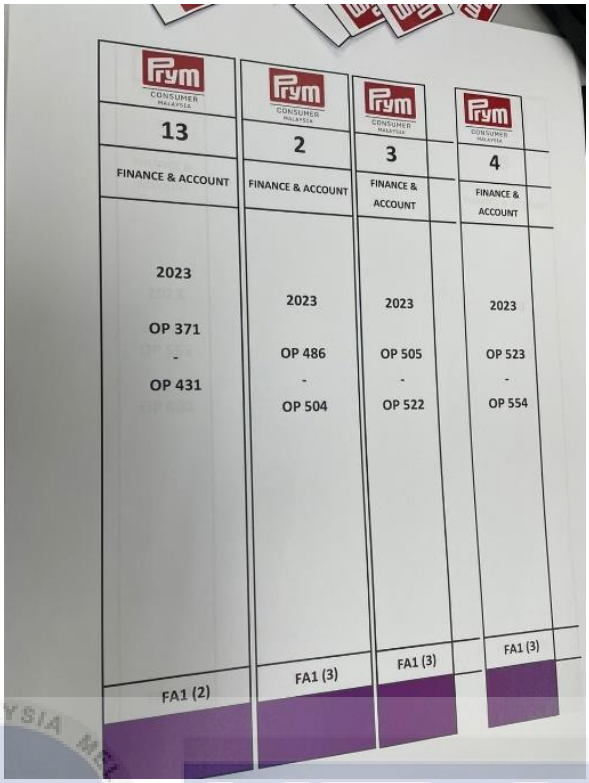


Figure 4.18: New template for file tags

e) Sustain (Shitsuke)

This is the last step in 5S, which is Shitesuke (Sustain). This stage is very important to ensure that the improvements made through the previous 4S are maintained over time and not just at a one-time event. This requires creating a culture of continuous improvement, where the employees in the office are empowered to identify and address problems on an ongoing basis. The one key factor of sustaining improvement is employee involvement. Employees should be involved in the implementation and maintenance of the 5S system. Besides that, the employees should be trained on the importance of sustaining improvements and provided with the necessary guidance and resources. The training sessions for employees were a crucial component in ensuring the successful implementation and sustainability of the 5S principles. By educating employees about the 5S methodology, providing hands-on practice, and clearly defining their roles, the organization could effectively maintain clean and organized file storage areas. Therefore, the management needs to provide 5S training for the employees.

The objective in this stage involved creating a system of regular 5S audits with a point of marking to ensure that the standards set for maintaining 5S are met. The office management

and supervisor served as auditors, responsible for conducting monthly 5S audits in filing management. The 5S Audit Checklist (Appendix B) was conducted two weeks after 5S activities were complete to examine the progress in maintaining 5S in file management. These 5S audit checklists serve as checkpoints to verify that the standards set during the initial implementation were being maintained over time. A point marking system is used during audits to objectively assess compliance with the 5S standards. This system allows for a quantifiable performance measure, making it easier to identify areas that need attention and track progress over time.

In addition, training sessions were conducted for employees to familiarize themselves with 5S principles and practices and ensure they understood their roles in maintaining clean and organized file storage areas.

Figure 4.19: Training session with employee

Figure 4.20: Examine the progress after the two-week standardization phase

4.3 Results and Discussion of Objective 3

After each of the 5 pillar stages of 5S implementation was completed, the validation was created to ensure the improvement in filing management.

4.3.1 Survey Results

A survey form for post-implementation of 5S (Appendix C) is distributed to 5 respondents in the finance office, and their responses are recorded. This survey was conducted to study the effectiveness of implementing 5S in file management. A sample size of 5 participants who had completed both pre and post-implementation surveys. A one-tailed paired

t-test was conducted using SPSS software to compare the pre and post-implementation survey scores of the study's variables, aiming to identify significant perceived changes resulting from the 5S implementation. The significance of the threshold was set at an alpha of 0.05, and the results of the paired t-test are displayed in the table below.

Table 4.1: Paired samples t-test results for efficiency, cleanliness, and file search time pre and post-implementation

	PRE-IMPLEMENTATION				*POST-IMPLEMENTATION*			
Variable	*N*	df	*M*	SD	*M*	SD	*t*	*p*
Efficiency	5	4	2.20	0.84	4.00	0.71	-9	0.000421916
Cleanliness	5	4	1.40	0.54	5.00	0	-14.70	6.2363E-05
File Search Time	5	4	2.00	0.71	4.40	0.55	-6	0.001941269

a) Efficiency

Efficiency was defined as ability to organize, access, and maintain files in streamlined and effective manner. Efficiency in file management make the easier for employees to locate and retrieve the files and documents when needed. It also involves minimizing unnecessary clutter and ensuring that files are stored in appropriate locations to optimize space utilization.

5S led to a perceived increase in efficiency as the post-implementation mean score was higher than the pre-implementation mean score. This comparison was statistically significant ($t = -9$, $p < 0.001$). Results from the efficiency scale indicated that participants perceived there was an improvement in the file storage areas after 5S implementation.

b) Cleanliness

5S increased perceived positivity and cleanliness in file management as the post-implementation mean score was significantly higher than the pre-implementation mean score ($t = -14.7$, $p < 0.001$). The reported average after the implementation of 5S was higher than

before 5S was implemented. The employees' results showed a perceived improvement in file management cleanliness.

c) File Search Time

The file search time was defined as the time required to find the files in the file storage and the employee's perceived improvement in finding files. 5S led to a perceived reduction in file search time as the post-implementation mean was significantly different compared to the pre-implementation mean ($t = -6$, $p < 0.01$). Employees considered the time required to find files improved in the post-implementation of 5S. The time required to find files was measured a week before 5S and two weeks after 5S. Table 4.2 shows there was an average of 81.86% reduction in file search time post 5S.

Table 4.2: Time taken for search file in 3 days

Days	**1**	**2**	**3**
Pre-implementation 5S (sec)	252	242	232
Post-implementation 5S (sec)	136	135	115
Time saved	116	105	95

4.3.2 Key to Sustainable 5S

Sustain (Shitsuke) is the final step for the continuous improvement method in 5S method that is the most challenging to implement. Sustaining improvements requires a cultural change within the organization. Employees must adopt new habits and behaviours, which can be difficult to maintain over time. Therefore, there are several keys to sustaining file management. It does not have to be difficult because the key is to allow the system to operate in the office.

a) PDCA Approach

Further improvements to sustain in file management can be made by encouraging effective use with the help of the PDCA cycle (Zadry and Darwin, 2020). The first phase in the PDCA cycle is the "Plan", in which the management and supervisor need to visit all the filing management departments and find out the problem for each department. Besides that, they need to do a time study to find the file. Also, prepare the 5S awareness session material for file storage arrangement and make a team for the 5S project. After creating a team for the 5S project, continue with brainstorming sessions with the team and plan how to solve the problem. For this project, all of the team members need to consider the inputs such as cost and time for the implementation. Next is "Do", the stage implementation of 5S from what was planned. The implementation was executed according to the plan. The third phase is "Check" which the management and supervisor need to review after the implementation and give comments on whether the implementation is correctly done or not. Also, they need to monitor the during the whole process of implementation. The last phase is "Act", after the implementation was done, they needed to check to make sure it met the objectives from the "Plan" phase. Also, they need to make conclusions and recommendations for future improvements.

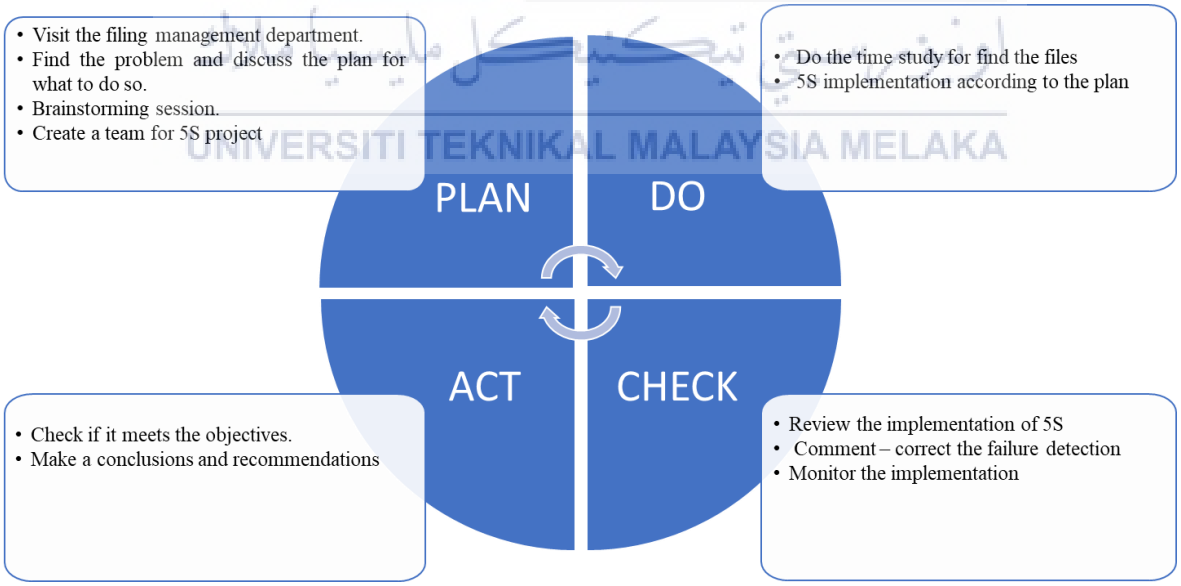


Figure 4.20: PDCA approach (Agrahari et al., 2015)

b) Rewards and Recognition

According to Kumari et al. (2020), the implementation of 5S was conducted in the Storage Area of the food industry at the manufacturing of Indian traditional Sweets, Snacks, and Foods, which received Second Position in the CII National 5S Excellence Award Held.

In order to gain motivation for the employees to sustain in file management, the management and supervisors play an important role in creating competition across all departments in the company. The management and supervisors need to reward the department with the highest score in 5S implementation. Offering rewards for the highest scores in 5S implementation creates a competitive environment where departments strive to achieve excellence (Rahman et al., 2010). These competitions can take various forms, including monetary incentives, public recognition, certificates of achievement, or additional resources allocated to the top-performing departments. Therefore, the employee will have more motivation and discipline to do 5S.

c) Self-discipline

Another important key factor for sustaining is self-discipline among the employees. Without this key factor, consistent standards of productivity, efficiency, and cleanliness are impossible to maintain. Self-discipline empowers employees to take ownership of their workplace and file management systems, ensuring that they proactively uphold 5S practices even without direct supervision (Gapp et al., 2008). Another key to solving tasks was changing the staff's mindset. This was accomplished through well-timed, carefully crafted lectures that included personal examples and emphasized a people-centred approach, both in statements and in practice (Agrahari et al., 2015)

d) Perceived Organizational Support (POS)

According to Stephen (2021), POS refers to employees' perceptions of how much the organization values their contributions and cares about their well-being. When employees feel supported by their organization, they are more likely to engage in behaviours that support

organizational goals, including maintaining the 5S method in file management. This support can include providing necessary resources and costs and recognizing employee efforts. This involvement leads to a stronger commitment to the 5S method, such as keeping their file storage area tidy, clean, and efficient.

Furthermore, employees need to understand the importance of file management for organizational efficiency, productivity, and job satisfaction (Rhoades and Eisenberger, 2002). Therefore, management should communicate with their employees the benefits of 5S method clearly and consistently, emphasizing how they contribute to a more organized, efficient, and conducive work environment. Employees who understand the personal and organizational benefits are more likely to commit to sustaining 5S. The diagram below illustrates the relationships between various factors affecting work engagement and performance outcomes.

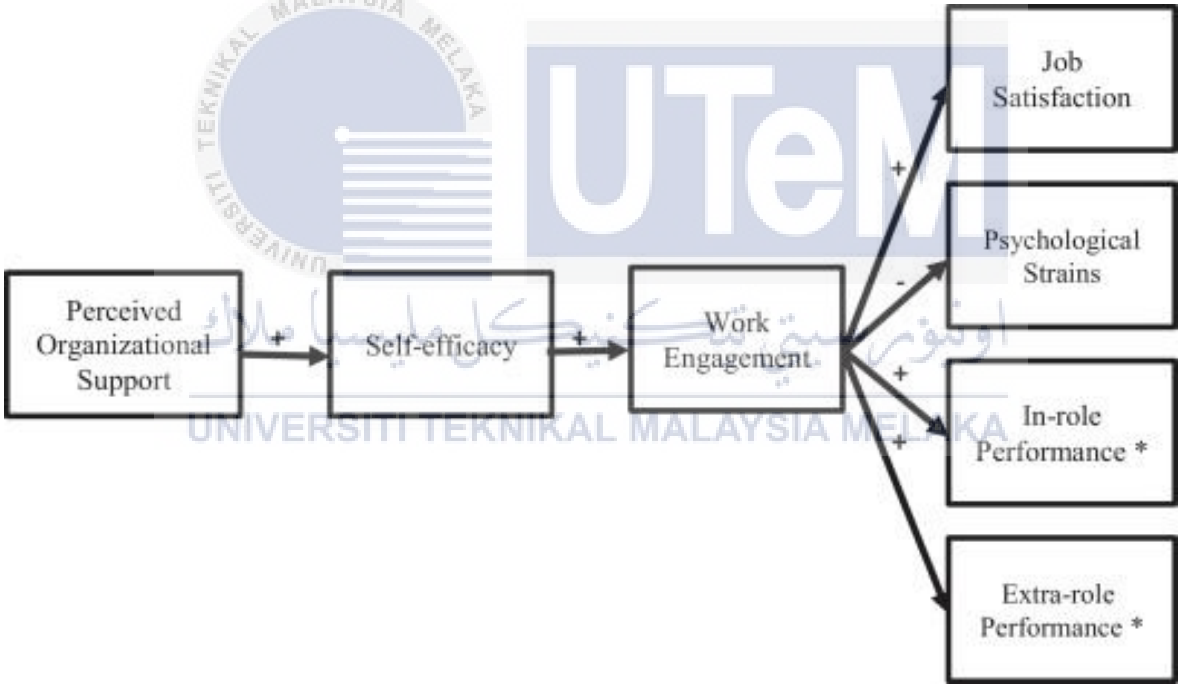


Figure 4.21: The relationship between perceived organizational support and work engagement (Caesens and Stinglhamber, 2014)

In addition, management should provide training programs about 5S to help employees develop the skills and knowledge necessary to implement and maintain the 5S method effectively. By participating in training programs, employees can learn and understand how to identify and eliminate waste, organize file management efficiently, and maintain high standards

of cleanliness in office areas. Training programs also boost a culture of continuous improvement as employees become more engaged and take responsibility for office areas.

Thefore, POS is important for the sustainability of 5S practices. This continuous support and commitment from the organization and its employees create a culture of excellence and continuous improvement that is essential for the success of 5S.

e) Perceived Supervisory Support (PSS)

PSS refers to employees' perceptions of how much their supervisors value their contributions and care about their well-being. Supervisors who provide strong support can encourage employees to engage more deeply with 5S practices by offering guidance, resources, and recognition (Shanock and Eisenberger, 2006). Supervisors should encourage by having open discussions with employees, giving them a chance to participate and express their opinions and ideas when making decisions.

Research has consistently shown that perceived supervisor support is a significant predictor of turnover intention, with higher levels of support leading to lower intentions to leave the organization. For example, a study by Elamin et al., 2023 found that perceived supervisor support explained 25.8% of the variance in turnover intention and demonstrated a significant functional influence on it.

CHAPTER 5
CONCLUSION AND RECOMMENDATION

This chapter explains the relationship between the objectives that can be developed to achieve the result. It also presents recommendations for further improvement, as well as for sustainability and complexity elements.

5.1 Conclusion

In conclusion, this research has successfully achieved its objectives by addressing the problem statements in file management at Prym's finance office. The first objective is to study the current 5S and its potential to be applied in file management. This objective was achieved by thoroughly observing the finance office in file management. During the observation, it was found that the finance office has not implemented the 5S in filing management. As a result, the detailed observations helped identify areas where 5S could be implemented to enhance efficiency and organization. Also, the pre-implementation survey was conducted to address the specific issue requiring improvement.

Besides, the second objective of this case study is to implement a standardized 5S method in filing management to ensure file handling consistency. The implementation involves several 5S tools and techniques for each phase included through files to eliminate unnecessary clutter, designing systematic filing management processes, instituting regular cleaning and maintenance protocols, and establishing standardized procedures for file organization. The implementation of these 5S activities resulted in improved productivity and efficiency in file management. The structured approach adopted ensured that the finance office maintained a high level of organization and minimized the risk of misplaced or lost files. As a result, 5S implementation is a good method to improve organization and efficiency in file management at finance office.

Lastly, the third objective is to validate the 5S method for filing management that allows for quick and easy retrieval of files and information. During this objective, the survey was conducted among the employees, which assessed the effectiveness of the 5S implemention. The survey results indicated significant improvements in effeciency, cleanliness and file search time. The post-implementation data showed that employees found the new filing management system to be more efficient and easier to use. In addition, after the implementation of 5S, the time spent searching the files and information was reduced by as much as 136 seconds from 252 seconds on day 1, 135 seconds from 240 seconds on day 2, and 115 seconds from 210 seconds on day 3, which is an 81.86% reduction. It is clearly proven that the 5S method can reduce the time spent searching for files and information in the file storage area.

5.2 Recommendation

Based on the study findings, this chapter provides additional recommendations for further improvement to the finance office, extending beyond the scope of implementing 5S in file management.

5.2.1 7S method

Companies should adopt 7S in filing management to enhance efficiency and reduce waste. Building upon the traditional 5S principles, 7S introduces Safety and Spirit, emphasizing a holistic approach to workplace organization.

Safety is a critical addition to the traditional 5S methodology. Ensuring that file storage systems are designed ergonomically can reduce the risk of strain and injury. Meanwhile, fostering a positive work environment and cultivating a spirit of teamwork and continuous improvement are essential for the long-term success of the 7S methodology.

In addition to the core 7S principles, several supplementary measures can further reduce waste. A digital filing system can significantly reduce reliance on paper documents, promoting a paperless office environment. Minimizing printing and using electronic signatures and documents can also reduce waste. Establishing a recycling program for paper and other office materials and educating employees on proper recycling practices can enhance environmental sustainability.

5.2.2 Logbook for Tracking File Usage

It is recommended that a logbook be provided in the file management system to track file usage in the area. This logbook will help monitor file access, maintain an organized record of file movements, and ensure accountability. By tracking who uses which files and when, the finance office can further enhance efficiency and reduce the risk of misplaced documents.

The logbook serves as a centralized record-keeping tool to document every instance of file access and movement within the filing system. This can be a physical logbook kept near the filing area. The key components of the logbook should include the date and time of access, file identifier, user information, purpose of access, and duration of access, as well as maintain better control over the filing system.

5.3 Sustainability Element

The topic of sustainability has piqued people's curiosity. In 2015, the United Nations Development Programme (UNDP) listed 17 goals. Goal 8: Decent Work and Economic Growth and Goal 12: Responsible Consumption and Production are particularly relevant to this case study. As a result, implementing the 5S methodology in filing management aligns with these goals by promoting efficient resource utilization, reducing waste, and fostering a safe and

productive work environment. This approach enhances operational efficiency and supports sustainable economic growth and responsible consumption practices.

5.4 Complexity

Implementing the 5S methodology in the finance office's filing management system involves addressing numerous complex elements that pose significant challenges. One of the most significant complexity elements was the initial state of disorganization in the finance office's file storage areas. It takes so many weeks to complete the phase due to the large volume of files and documents. Also, ensuring that all employees were adequately trained and involved in the 5S process was a significant challenge. It required continuous effort to educate and engage employees to maintain new standards and practices.

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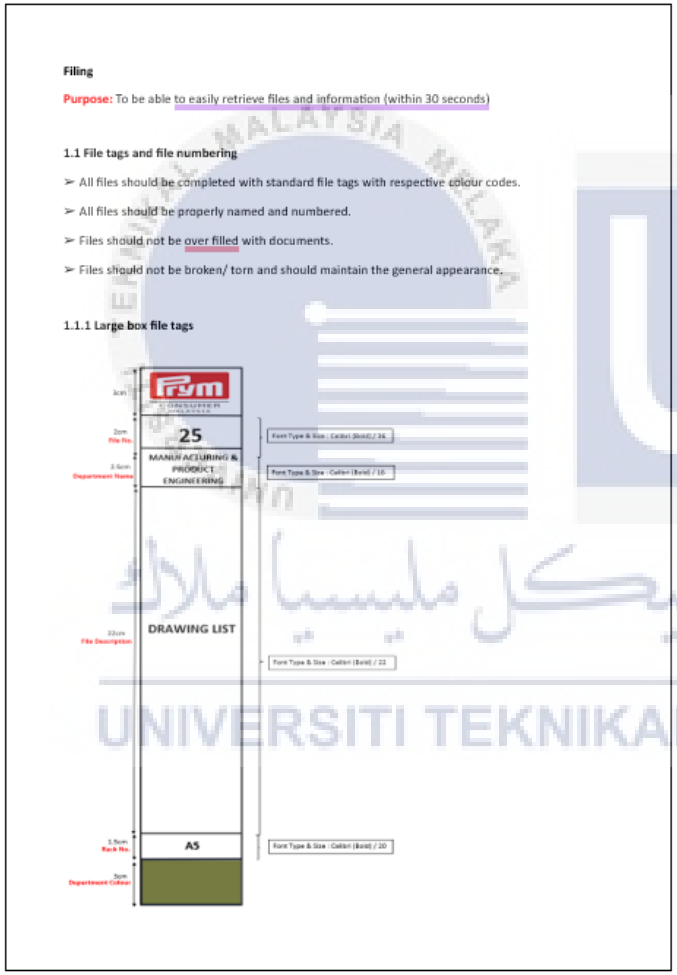
APPENDICES

(Appendix A – SOP for Filing)



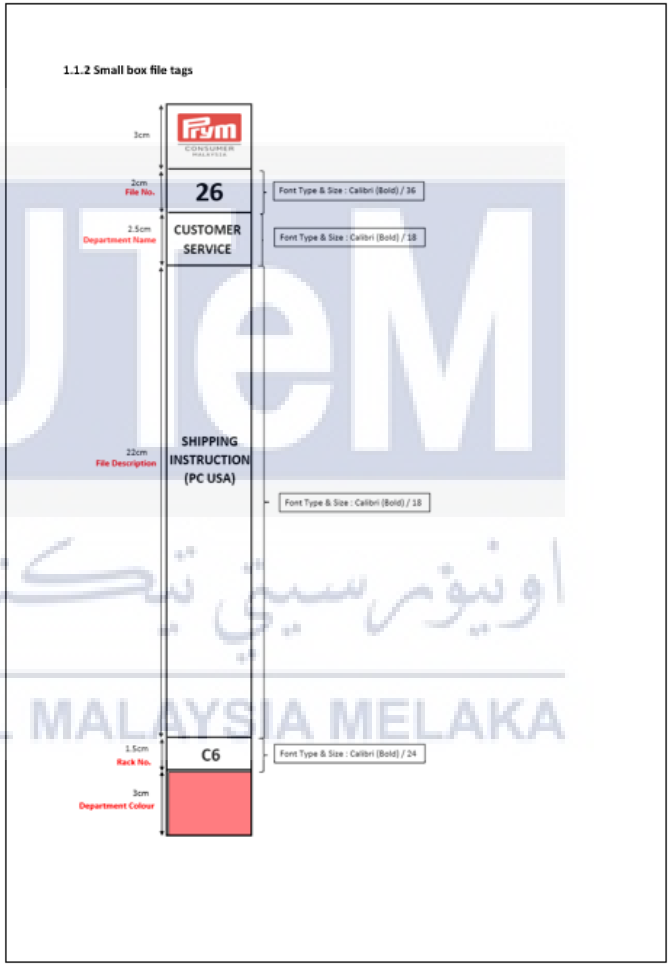
Filing

Purpose: To be able to easily retrieve files and information (within 30 seconds)

1.1 File tags and file numbering

- All files should be completed with standard file tags with respective colour codes.
- All files should be properly named and numbered.
- Files should not be over filled with documents.
- Files should not be broken/ torn and should maintain the general appearance.

1.1.1 Large box file tags



1.1.2 Small box file tags

1.1.3 Department wise colour codes

Department Name	Colour Code
Module F1	
Module F2	
Module F3	
Safety	
Dispatch	
HR	
Finance	
MIS	
Procurement & purchasing	
Manufacturing & Product Engineering	
Planning & Order Fulfilment	
Customer Service	
Quality Control	

1.1.4 Placement of file tags

1.1.5 File numbering

1.1.5.1 Main file number

Purpose: To indicate the sequence of files and to ensure those files are kept in order as per sequence at any given time so that in case a file is missing, it is clearly visible as to which file is missing exactly. Thereby, the main file number is the primary method to ensure traceability and the zigzag yellow tape (refer to section 1.2) is the secondary method to ensure it. Therefore, the main file number should be unique to each file and should not be compromised.

There could be instances where a rack, a shelf or a few racks/ shelves are allocated by person/ by function etc. In such a scenario, the main file number should be unique to each person/ function etc.

E.g.01: Racks/ shelves allocated by person,

Alif – 1,2,3…….

Mazlan – 1,2,3……

Ismail – 1,2,3……

E.g.02: Racks/ shelves allocated by function,

Tax files – 1,2,3….

Payment vouchers – 1,2,3……

Main file number should be unique, and the continuation of the main file number would depend on the previous file.

E.g. 03:

If there are 27 files already in place, the next main file number would go as 28. (Irrespective of whether the file numbers 27 and 28 are from the same category or not)

1.1.5.2 Roman number/ Sub file number

If there is more than one file in the same category, it should be mentioned in the 0.5cm space at the bottom of the file tag in Roman numbers (I, II, III, IV & etc.) to indicate the continuation of the same file category. Please refer below as an example.

E.g.: Assume that there are 26 files already in place in total. Out of which 10 files are Kaizen record sheets (up to the year 2021),

➢ Scenario 1 – If the next file is Kaizen record sheets 2022, it should be numbered as below,

- Main file no: 27 (this indicates that there are 26 files already in place and that the main file number should continue, even if the files are from the same category or not)
- File description: KAIZEN RECORD SHEETS – 2022
- Roman no: (XI) (this indicates that there are 10 files already in place for the same category of kaizen record sheets and this is the 11th file – the other 10 could be in between those 26 files already in place)

➢ Scenario 2 – If the next file is not from the same category (not kaizen record sheets) it should be numbered as below,

- Main file no: 27 (this indicates that there are 26 files already in place and that the main file number should continue, even if the files are from different categories)
- File description: 5 Why Report 2022 (Different category)
- Roman no: I (this indicates that there are no previous files already in place for the category of "5 why reports" and this is the 1st file)

➢ Scenario 3 – After the file number 26 (KAIZEN RECORD SHEETS – 2021 - X) if there are two more other files (27 & 28 from different categories), KAIZEN RECORD SHEETS – 2022 should be numbered as below,

1.3 Use of separators and index

When a file contains separators, it is mandatory to have an index sheet. The index sheet gives a clear description of the contents of the file with a corresponding index number to each separator. The separators should match accordingly with the file index.

1.3.1 Separators

Purpose: To identify and refer file contents easily.

➢ All the documents should be placed after the separator sheet and separators must be numbered.
➢ It is recommended to make a table like below and include all file separator numbers.

➢ After taking a printout, cut all the cells and paste them on file separators appropriately using glue.

6.1	6.2	6.3	6.4	6.5	6.6

Font Type- Arial (Bold)
Font Size - 11
Alignment - Center

1.4 Index sheet

Purpose: To give a clear description of the contents of the file with a corresponding index number to the separators so that the content can be accessed easily in a minimum amount of time.

INDEX

27. Kaizen Record Sheet 2022

27.1 Hook & Eye Department
27.2 Underwire Department
27.3 Motif & Shoulder Strap Department
27.4 Maintenance Department
27.5 Quality Assurance Department
27.6 Stores & Logistics Department
27.7 Dye House Department
27.8 Support Services
27.9 Monthly Winning Kaizens
27.10 Green Kaizens & Kaizens with Savings

Font - Arial (Bold)
Font Size - 26
Alignment - Center

Font – Arial (Bold)
Font Size - 14
Alignment - Center

Font – Arial
Font Size - 11
Alignment - Center

(Appendix B – 5S Audit Checklist)

5S CHECKLIST ASSESSMENT							
Work Area:			*key: 1=non-existent, 3=average, 5=excellent				
5S PHASE	DEFINITION	STANDARD TO BE MET	RATINGS				NEXT STEPS
		Date Of Assessment					
Sort (Seiri)	The right files are available and unnecessary files are removed	No unneeded file are stored in shelves					
		There are no out-of-date files					
		All file storage and shelves are free from clutter					
		Standard for removed unnecessary files exist and are being followed					
Set in Order (Seiton)	There is place for files and files is in its place	All files are stored in a correct shelves					
		Files are organized by category and years					
		File tags and indexing system are clear					
		File storage and files are clearly labeled					
Shine (Seiso)	Everything is clean and in order	Shelves and file storage are kept clean in a good condition					
		No damaged or torn files					
		Floor and surroundings of file storage areas are clean					
		Employees have good movement to access the right file					
Standardize (Seiketsu)	Guideliness and procedures are established to maintain the first three steps	Procedures for maintaining the '3S' are being displayed					
		5S schedule and responsibilities					
		Regular audits are taking place using checklists					
		Cabinet,shelves, color coded, file tags are visible in file storage areas					
Sustain(Shitsuke)	5S is a habit that people incorporate into their daily practice	Everyone involved in maintaining the 5S in the file storage areas					
		Training section for 5S activities					
		5S results are displayed					
		Employees are recognized for 5S practice					
		TOTAL SCORE					

(Appendix C – Pre/Post-Implementation of 5S)

5S Pre-Implementation Survey for Financial Department Filing

SECTION 1: GENERAL INFORMATION

1. Department: FINANCE
2. Position: CLERK
3. Years with the company: _____

SECTION 2: CURRENT FILING SYSTEM

No.	Pre-implementation of 5S	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
1.	How would you rate the current state of file organization?			✓		

		Always (1)	Often (2)	Sometimes (3)	Rarely (4)	Never (5)
2.	How often do you encounter misplaced or irrelevant documents?		✓			

		Very difficult (1)	Difficult (2)	Neutral (3)	Easy (4)	Very easy (5)
3.	How easy is it to locate files and documents in the current system?			✓		

		Not clear (1)	Somewhat clear (2)	Neutral (3)	Clear (4)	Very clear (5)
4.	How clear is the current labeling and identification system for files and documents?			✓		

		Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
5.	How would you rate the cleanliness and orderliness of the filing area?			✓		

		Not at all (1)	Somewhat (2)	Neutral (3)	Yes (4)	Absolutely (5)
6.	Are there standard procedures in place for filing and retrieving documents?		✓			
7.	How well do you understand the current procedures for filing?			✓		

		Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
8.	How often do you receive training or reminders about filing procedures?			✓		

		Not committed (1)	Somewhat committed (2)	Neutral (3)	Committed (4)	Very committed (5)
9.	How committed do you feel the department is to maintaining an organized filing system?			✓		

5S Pro-Implementation Survey for Financial Department Filing

No.	Pre-implementation of 5S	Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
1.	How would you rate the state of file organization after the 5S implementation?				✓	

		Always (1)	Often (2)	Sometimes (3)	Rarely (4)	Never (5)
2.	How often do you encounter misplaced or irrelevant documents after 5S implementation?			✓		

		Very difficult (1)	Difficult (2)	Neutral (3)	Easy (4)	Very easy (5)
3.	How easy is it to locate files and documents after 5S implementation?				✓	

		Not clear (1)	Somewhat clear (2)	Neutral (3)	Clear (4)	Very clear (5)
4.	How clear is the labeling and identification system for files and documents after 5S implementation?				✓	

		Very poor (1)	Poor (2)	Fair (3)	Good (4)	Excellent (5)
5.	How would you rate the cleanliness and orderliness of the filing area after 5S implementation?				✓	

		Not at all (1)	Somewhat (2)	Neutral (3)	Yes (4)	Absolutely (5)
6.	Are the storage locations for files and documents clearly defined and consistently used after 5S implementation?				✓	
7.	How well do you understand the standard procedures for filing after 5S implementation?			✓		

		Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
8.	How easy do you find the standard procedures to follow after 5S implementation?				✓	

		Not committed (1)	Somewhat committed (2)	Neutral (3)	Committed (4)	Very committed (5)
9.	How often do you receive training or reminders about the 5S practices after implementation?			✓		