

# Proposed Repair to Minimize the Difference of Delivery Items Using Fishbone and 5W + 1H

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## ARTICLE INFO

### Article history

Received : 19 May 2021  
Revised : 17 September 2021  
Accepted : 18 October 2021

### Keywords

Difference Quantity of Goods  
Standard Delivery Time  
Fishbone  
5w + 1h

## ABSTRACT

Bekasi post office 17000 is an UPT PT Pos Indonesia located in the Regional 4 working area of West Java. Based on data obtained from irregularity website PT Pos Indonesia in September-November 2019, various problems occurred in indoor process of Bekasi Post Office. The biggest problem is that the difference between the barangs shipped with 56 occurrences. The search process must be carried out to find these missing barangs, so that further investigation is needed which causes the delivery duration exceed the standard delivery time (SWP). This study aims to determine the factors that cause the difference between the manifest and the physical delivery of the consignment and provide suggestions for improvement. The research method used fishbone analysis techniques and 5W + 1H. Based on the results of the research, the difference in consignment barangs is less due to the barang being not scanned, x-ray failure, wrong bagging, and error scanning device. Proposals for improvements to minimize the difference in barangs being shipped are conducting briefings and socializing work SOPs to officers, imposing rewards and punishments for enforcing SOPs, checking empty bags, and coordinating with the facilities section so damaged scanner can be repaired.

## 1. INTRODUCTION

PT Pos Indonesia is a state-owned state-owned by the postal service provider in Indonesia. According to Law No. 38 of 2009, the post is a written and / or electronic mail service, package services, logistics services, financial transaction services, and post-agent services for public interest. The Technical Implementation Unit (UPT) is a work-related technical unit that supports operational activities from the results of service and sales activities in the counter including processing, transport, delivery, reporting, reporting in the region..UPT OfficePoK Bekasi 17000 is located in the regional work area 4 Jakarta. The more frequent shipping service pushed PT Pos Indonesia to have *Competitive Advantage*.

*Competitive Advantage* It is necessary to survive in business competition. In order to get acquiring *Competitive Advantage*, The company needs to keep customer satisfaction. Based on the results of Hafizha et al. (2019) factors affecting customer satisfaction in using delivery services are service quality, timeliness, delivery rate, and facilities. KThe time of time is the customer's period of ordering the product until the product arrives in the customer [1]. Estimated arrival estimates usually become the benchmark of customers to find out whether the inter service is good or not. In carrying out business processes, PT Pos Indonesia has a standard delivery time (SWP) for each service product offered. The SWP for each delivery service is as follows: Special Express Package (PKH) has SWP H+2 to D+4 since it was submitted to the counter; Postal Express packages have SWP H+5 to D+7 since they were handed over to the counter; Ordinary Postal Package (PPB) has a maximum SWP of H+7 since it was submitted to the counter; Pos Express packages have SWP

H+1 since they were handed over to the counter; Q9 has an SWP of 9 hours since it was handed over to the counter; The Q-Comm Postal Package has SWP H+2 since it was delivered to the counter; Express Mail Service International (EMS) has SWP H+5 since it was delivered to the counter.

However, in its operational process, the company cannot be separated from problems. One indication of a problem can be seen from the complaints submitted by consumers as users of products and/or services. On the Instagram account of PT. Pos Indonesia, there are customers who complain about goods that have not been received. This happens because of various irregularities/problems in the company's business processes. The following is data on irregularities that occur at the Kantor Pos 17000 Bekasi.

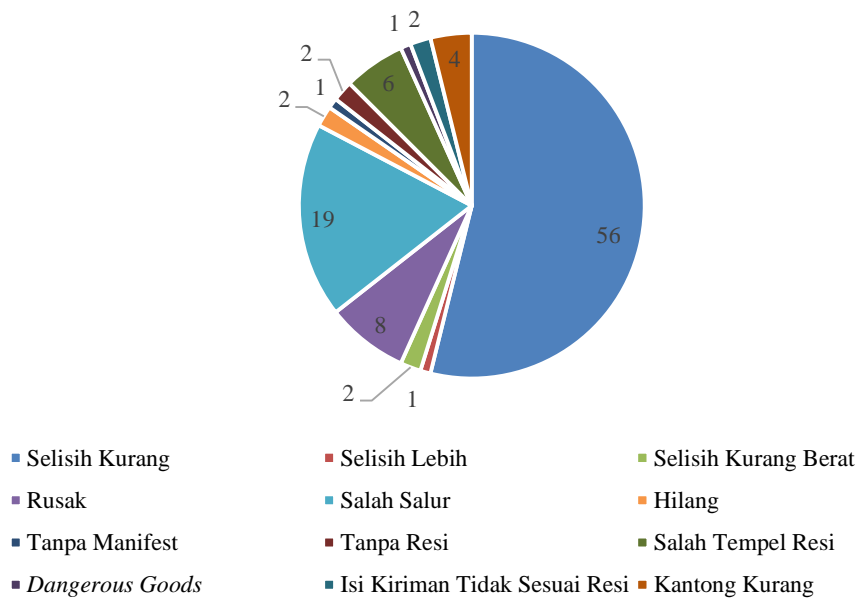


Figure **Error! Bookmark not defined.** Data of Irregularity Shipping Package at Kantor Pos Bekasi September-November 2019.

Source: *Website* Iregularitas PT Pos Indonesia

Based on the above irregularity data, the urgent main problem to resolve is the difference between the goods *manifest* with physical items. Data shows that the difference *goods* less between *manifest* With the physical items of elections into irregularity with the frequency of the highest occurrence of 56 times or 53.8% of all irregularity occurring during the period of September-November 2019. The impact of the problem is the duration of delivery will exceed the standard prompt delivery (SWP). The delivery duration passes by SWP due to the search process should be done to find the loss of the item. The disruption of the Swed promised with the delivery time that the consumer felt the consumption of consumer satisfaction. Unsatisfactorily consumers will switch to competitors. Therefore, research needs to be done to find the factor causing the difference of the loss of the loss is less *manifest* with the physical item of delivery and provide a proposed improvement to maintain *Competitive Advantage* and maintain customer satisfaction of PT Pos Indonesia's customer service. Proposed repair to minimize the difference of items of delivery is using Fishbone and 5W + 1H.

## 2.METHOD

The research is located in the office of UPT Bekasi 17000 which is located on Jalan Multiguna No 7, Margahayu District, Bekasi City, West Java, Indonesia. Research using primary data and secondary data. Primary data is required to know the factor causing the difference of the item of the post is not less *manifest* With physical items, secondary data is required to know the number and type of irregularity. Primary data collection techniques are performed by observing and interviews with part managers *Indoor Process*, secondary data in the form of irregularity occurring in the

period of September-November 2019 is obtained from documentation on the website of Irtholitas PT Pos Indonesia with the help of the Partner's staff *Indoor Process*.

The research was conducted using qualitative methods with data analysis techniques diagram *Fishbone* and 5W + 1H. The fishbone diagram is used to determine the factors causing the less difference between the manifest and the physical shipment. Fishbone It is a diagram that shows the causes of a problem. This diagram allows related parties to know the possible cause of problems, classify such possibilities based on logic, and provide information over to identify priorities, trends, and relationships between factors (*The Council for Six Sigma Certification*, 2018). This diagram shows the main causing factors consisting of raw materials (*material*), Machine (*machine*), Labor (*man*), Method (*adethod*), and the environment (*environment*) [2]. The following are the steps for making a fishbone diagram in this study, namely collecting data, describing the causal factor chart, and identifying the root of the problem.

To provide proposed repair to minimize the problems that occur menguse the technique analysis of 5W + 1h. Analisis 5W + 1H Describe the action plan includes (1) *What*, what is the main target of repair; (2) *Why*, Why is the quality improvement required; (3) *Where*, where its implementation; (4) *The who*, who is category; (5) *When*, when done implemented, and (6) *How*, how to do it [2]. Stages in using 5W + 1h analysis as follows [3]:

- 1) *What*, meaningful to what problems will improve repair?
- 2) *Why*, meaningful why need to be done?
- 3) *Where*, meaningful to where the repair location will be done?
- 4) *When*, meaningful when will the improvement be done?
- 5) *The who*, meaningful who is responsible for the repair to be done?
- 6) *How*, meaningful to how to strategize the problem of repairs?

### 3. RESULTS AND DISCUSSIONS

In this study, first look at the analysis of existing business processes in the company to explore the problems that exist in the company. Process analysis is the first technique to see business processes and detailed ways in which information and goods are moved [4]. This includes analysis *input*, process steps applied to *input*, and results *the output*. By understanding the company's business process, it will easily identify the lit of the problem in the company's operational process. Business process activities of office hasso Bekasi 17000 is depicted through *flowmapt* he following:

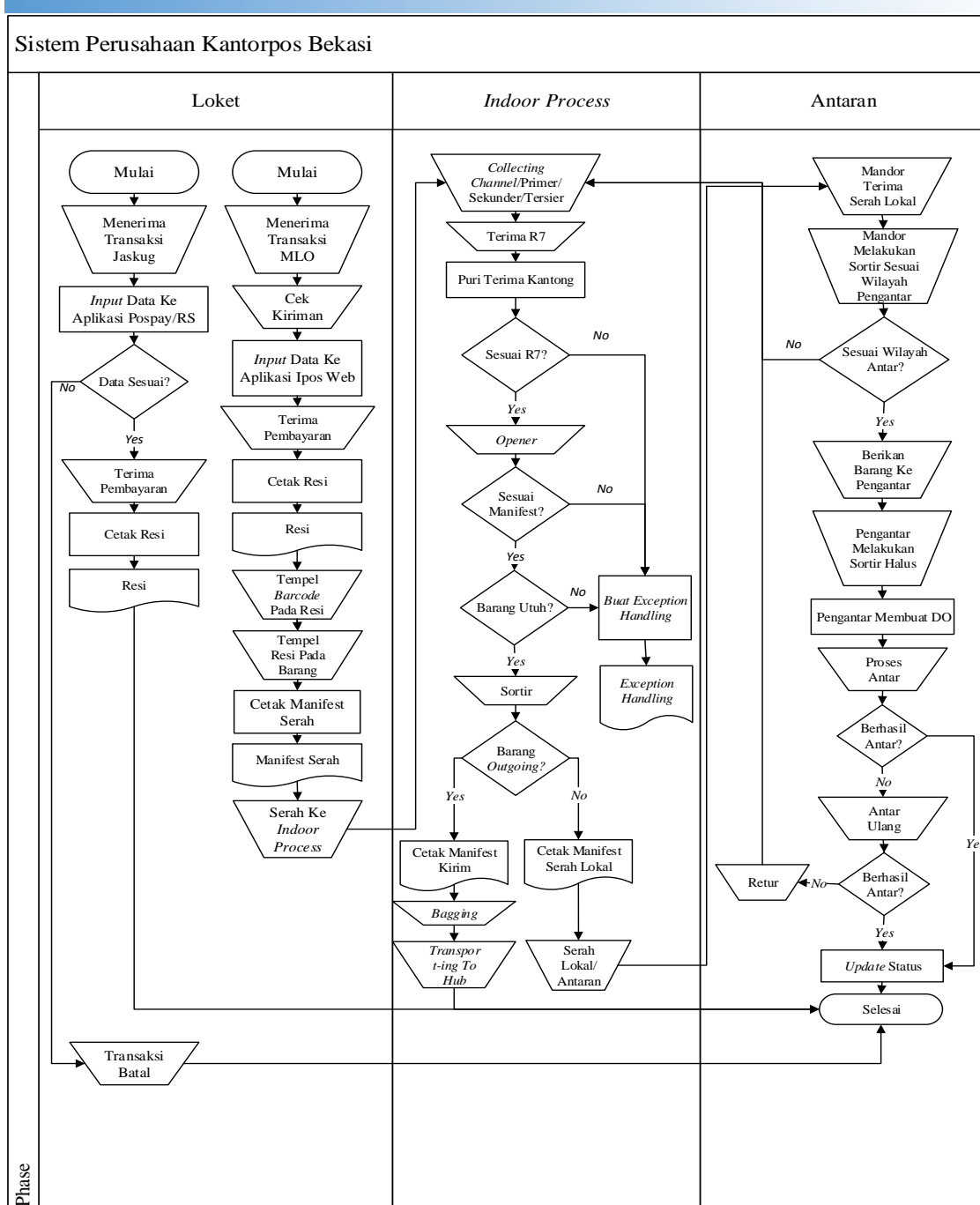


Figure 2. Flowmap Business process of office hasskit.  
Source: Data results, 2019.

Explanation of the process of working *Indoor Process* Division:

1. The Indoor Process section receives bags/goods from the collecting channel.
2. Receive proof of delivery in the form of manifest delivery from the counter or R7 if from the Hub.
3. Carrying out a bag receipt castle, checking the number of bags with the number listed in R7. If it is not appropriate then the manager makes exception handling. Exception handling is a file containing a statement that the post office has received the bag or goods in a non-standard condition.
4. Process Opener. Do the bag opening. The seal on the bag is opened using cutting pliers or with a cutter.
5. Doing the receiving office, matching the number of items in the bag with the number of items listed on the manifest.

6. If the goods are different or there is damage, the manager makes exception handling.
7. Sorting goods for outgoing or incoming.
8. Outgoing goods are separated. Send manifest is made, and the bagging process or bag closure is carried out. Incoming goods are sorted based on the foreman's delivery area and a local delivery manifest is made for the delivery of goods to the Delivery Department.

After the company's business processes are known, research can focus on the part that is the source of the problems in the business process. The problem that arises lies in the Indoor Process Section of the Bekasi Post Office. Based on the data that has been collected through interviews with the Manager of the Indoor Process Section, the factors causing the difference between the shipments and the manifest were obtained. These factors are presented in the form of a fishbone diagram. The following is a fishbone diagram of the factors that cause the difference between shipments and manifests:

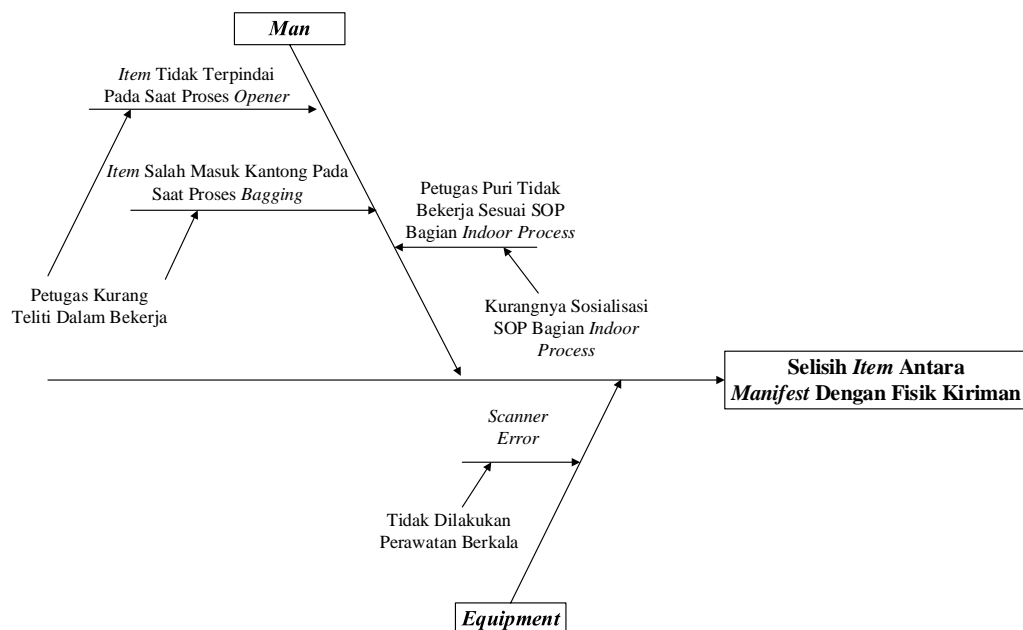


Figure 3 Fishbone Diagram-The Cause of Lack of Goods Difference in the Indoor Process - Kantor Pos Bekasi.

Source: Primary Data, 2019.

Based on the results of interviews with the Indoor Process Manager and observations, there are several factors that cause irregularities. The main factors are equipment (equipment) and man (human). Factor equipment (equipment) occurs because the scanner used error. Scanner error occurs in the bagging process. An error occurs when the scanner reads more than one barcode on the shipment receipt. So that the amount on the delivery manifest is more than the actual shipment..

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The man (human) factor occurs because the goods are not scanned during the opener process. The goods are not scanned, which causes the difference between the manifest and the physical shipment to occur during the opener process. One of the opener stages is to match the number of items listed on the manifest with the number of items in the bag. The

matching activity uses the receive application by entering the manifest number. When the manifest number is entered into the system, the system will automatically show the number of shipments along with the receipt number. To do the matching, the clerk scans the barcode on the shipment. If there are items that are not scanned, the amount in the system will not match. Another man factor is the wrong item entered the bag during the bagging process.

At the time of the activity of making the manifest of delivery, the goods are put into the bag in a way that is arranged as efficiently as possible to meet the capacity of the bag. There was an omission by the officer who forgot to enter the small shipment and closed the bag with a seal so that the goods were sent using a separate bag from the manifest. In addition, based on observations, there are other factors that cause a dozen items to be lacking, namely employees who do not work according to the applicable SOP. In the afternoon and evening outgoings, employees do not work according to company SOPs. Goods that arrive from the collecting channel are not carried out with a scanner. The goods go directly to the sorting stage. This violates the SOP for the Indoor Process Section which requires that the goods that arrive must be matched with the manifest document first. The results of the analysis using the fishbone diagram are in line with the research conducted by Somadi and Karwan (2020). Based on this research, the difference in goods factor is caused by the man factor and also the method. The results showed that employees' ignorance of the company's SOPs caused errors in the operational process which led to the difference in goods. The unavailability of technological updates to assist the work process can also cause differences in goods[5].

After the factors causing the difference are not known, the next step is to make suggestions for improvement. Proposed improvements using the 5W + 1H technique. The following is a proposed improvement using 5W + 1H to minimize the difference between shipments and manifests in the Indoor Process Section Kantor Pos Bekasi 17000:

TabHeyl1.Analysis 5W + 1 H

<b>Factors</b>	<b>5w-1h</b>	<b>Description</b>	<b>Actions</b>
<i>1 Man:</i> The goods do not scanned at the time of the opener process	<i>What?</i>	What is the main target of quality improvement?	Prevent and minimize the occurrence of items not being scanned during the opener process.
	<i>Why?</i>	Why is the action plan required?	Because the goods are not scanned, the difference between the manifest and the physical goods is less, thus requiring a time-consuming investigation.
	<i>Where?</i>	Where does the plan are implemented?	At the Puri Indoor Process Officer, Bekasi Post Office.
	<i>When?</i>	When will this take will be implemented?	Improvements should be made immediately to prevent and minimize similar incidents from happening again.
	<i>Who?</i>	Who will work on that plan activity?	Repairs were carried out by the Indoor Process Manager as the person in

<b>Factors</b>	<b>5w-1h</b>	<b>Description</b>	<b>Actions</b>
			charge and all the castle staff.
	<i>How?</i>	How to do the plan?	Managers more often do <i>briefing</i> before the activity began to improve the moral clerk of the castle. Officers do check the empty pockets to ensure no stuff Posts left behind.
<i>2 Man:</i> The wrong item entered the bag during the bagging process	<i>What ?</i>	What is the main target of quality improvement?	Prevent and minimize the wrong goods entering the bag during the bagging process so that the difference in goods can be avoided.
	<i>Why?</i>	Why is the action plan required?	Because the wrong item is in the bag, it causes less difference between the manifest and the physical shipment, so it requires a time-consuming investigation.
	<i>Where?</i>	Where does the plan implemented?	At the Puri Indoor Process Officer, Bekasi Post Office.
	<i>When?</i>	When will this take will be implemented?	Improvements should be made immediately to prevent and minimize similar incidents from happening again.
	<i>Who?</i>	Who will work on that plan activity?	Repairs were carried out by the Indoor Process Manager as the person in charge and all the castle staff.
	<i>How?</i>	How to do the plan?	Managers often conduct briefings before activities start to increase the morale of the castle staff.
<i>3 Man:</i> The castle workers do not work according to the SOP section <i>Indoor Process</i>	<i>What?</i>	What is the main target of quality improvement?	Increase the awareness of indoor process officers on the importance of working in accordance with applicable SOPs.
	<i>Why?</i>	Why is the action plan required?	Because the SOP is a guideline to achieve company standards and smooth work.
	<i>Where?</i>	Where does the plan are implemented?	In the Indoor Process Section of the Bekasi Post Office.

<b>Factors</b>	<b>5w-1h</b>	<b>Description</b>	<b>Actions</b>
	<i>When?</i>	When this action will be implemented?	We recommend that repairs be made immediately to avoid problems that arise due to not complying with the SOP.
	<i>Who?</i>	Who will work on that plan activity?	All officers of the Indoor Process Section.
	<i>How?</i>	How to do the plan?	Managers are more active in conducting socialization and briefings to remind castle officials to work according to the applicable SOP. Implement rewards and punishments so that officers comply with company SOPs.
4 Factors <i>Equipment:</i>  <i>Scanner error</i>	<i>What?</i>	What is the main target of quality improvement?	Ensure that the scanner reads the barcode accurately so as to prevent the difference between the manifest and the physical shipment of goods.
	<i>Why?</i>	Why is the action plan required?	Because the scanner error by reading more than one barcode on the same item causes less difference between the manifest and the physical shipment.
	<i>Where?</i>	Where does the plan are implemented?	At the Puri Indoor Process Officer, Bekasi Post Office.
	<i>When?</i>	When will this take will be implemented?	Improvements should be made immediately to prevent and minimize similar incidents from happening again.
	<i>Who?</i>	Who will work on that plan activity?	The Indoor Process Manager coordinates with the Facilities Section and third parties (service center scanners).
	<i>How?</i>	How to do the plan?	The Indoor Process Manager creates a scanner inventory to find out how many scanners are faulty and reports it to the Facilities Department. Cooperate with third parties to carry out regular scanner maintenance.

Source: Data results, 2019

Based on the results of the analysis, it was found that there were two main factors causing the difference between the manifest and the physical shipment of the shipment. These factors are equipment and man. From these known factors, the company needs to immediately make



improvements in order to maintain customer satisfaction. Customer satisfaction needs to be maintained so that it becomes a long-term benefit for the company. In the event of dissatisfaction, there are four possible customer responses, namely: Doing nothing (directly switching to another supplier); stop buying products and share information that has an impact on the company's image; submit a complaint directly and/or ask for compensation to the company; complain through the mass media, to consumer institutions or related government agencies, sue producers legally [6].

This improvement proposal is in line with previous research conducted by Somadi and Karwan. The results of Somadi and Karwan's (2020) research regarding the difference in goods between stock on hand and actual stock indicate a lack of employee understanding of company SOPs. To overcome the problem of the man factor, it is necessary to socialize SOPs that are carried out regularly[5].

#### 4. CONCLUSION

Based on the results of the analysis that has been done, there are two main factors that cause irregularities, namely the man and equipment factors. In the man factor, the irregularity of the difference between the manifest and the physical consignment is caused by the negligence of the worker by not scanning the shipment and incorrectly putting the shipment into the bag. In addition, based on observations, there were other causes, namely the castle staff did not work in accordance with the SOP for the Indoor Process Section. The equipment factor is caused by a scanner error that reads the barcode more than once on the same shipment. The recommendations for improvement are as follows: conducting briefings, training, and socializing SOPs that apply to officers in the Indoor Process Section on a regular basis; instruct officers to check empty bags; impose rewards and punishments to emphasize the importance of working according to company SOPs; coordinate with the Facilities Section regarding equipment supporting activities that are problematic in order to get treatment, if necessary cooperate with third parties to carry out regular scanner maintenance. Suggestions for further research can use other improvement methods in order to get more detailed results so that comparisons can be made.

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